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ABSTRACT

This health and human development curriculum for grades 1-6 contains tips for teachers and overviews of the philosophy behind teaching these topics to elementary school students. The section on health education is structured around ten content strands: (1) health knowledge, attitudes, decisions, and behavior; (2) emotional and social health; (3) growth and development, senses, and the nervous, skeletal, circulatory, musculatory, and respiratory systems; (4) safety and first aid; (5) preventive health care, illness, and disease; (6) nutrition and the digestive system; (7) environment, conservation, and pollution; (8) health information, products, and services; (9) dependency-causing substances, product safety, and product abuse; and (10) health organizations. A listing is provided, appropriate to each grade level, of the concepts, vocabulary, related topics, and suggested instructional materials dealt with in each strand. Information is presented on the inclusion of sex education in the human growth and development curriculum, and the school's perceived responsibility for sex education is discussed. The human growth and development curriculum addresses issues commonly encountered in the areas of health, psychology, sociology, and human sexuality. The five strands are: (1) the individual and personality; (2) the family; (3) peers and the environment; (4) physical growth and reproduction; and (5) male and female sexuality. Each strand includes concepts, vocabulary, activities, and appropriate resources. (JD)

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The Human Health, Growth, and Development Curriculum

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Our sincere appreciation and thanks are extended to the Boxborough School Committee and Boxborough Community for their fine input and support in the development of this curriculum.

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Blanchard Memorial School

The Human Health, Growth, and Development Curriculum

Good health and good sense
are two of life's greatest
blessings.
-Syrus

With full knowledge of the importance of good health and good sense, the Blanchard Memorial School offers this curriculum to its students and teachers.

The health material compiled on the following pages is the result of considerable reading and editing from the Laidlaw: Healthy Living Program, other curricula materials, and scores of other primary resources. Further, a great deal of original thought and organization have been exercised to create a clear, useful, and relevant document.

The human growth and development section was drafted from sources too numerous to list. Each source was considered with particular attention to age appropriate content. The team has made every effort to create a format that will meet the needs expressed by the community in the 1981 inventory.

The curriculum format offered falls in two major portions.

First, the "Health..."section is structured around the ten content strands presented in the Laidlaw: Healthy Living Program text. This outlined "strand" portion is interfaced with: vocabulary, related topics, and resources available through the Blanchard Memorial School.

Second, the "...Human Growth and Development" section addresses those issues most commonly encountered in the areas of health, psychology, sociology, and human sexuality. The five strands are: The Individual and Personality, The Family, Peers and the Environment, Human Growth and Reproduction, and Male and Female Sexuality. Each strand includes: concepts, vocabulary, activities, and appropriate resources.

The curriculum also offers a philosophy, objectives, background information, teaching suggestions, a glossary, and other needed documents.

With this structure and information available, we are confident that the Blanchard Memorial School will implement a health program of merit. It is our hope that the students will learn to view health as an issue of common sense and common sense an expression of a healthy individual.

The Human Health, Growth,
and Development Committee:

Linda Boyles
Anne Furlong
Sam Slarskey
Janice Massarelli, R.N.

Health Strands

STRAND # 1

Health knowledge, attitudes, decisions, and behavior

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Components of being healthy, happy self Keeping clean Eating meals Being careful Playing Resting	breakfast happy careful clean playing sleeping nutritious well-balanced	Playground safety Breakfast foods	Laidlaw Health Book pgs 6-19
2	Components of what keeps us healthy Seeing doctors Resting Eating good meals Keeping clean Dressing appropriately for weather Safety practices	healthy doctors resting rest safe foods meals warm dry clean eating preventive check-up immunization allergy allergic	Preventive care Different types of doctors Importance of absence notes and up to date records (immunizations, allergies)	Laidlaw Health Book pgs 8-19

STRAND # 1

Health knowledge, attitudes, decisions, and behavior

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	What is health What can help you be healthy Making healthy choices Health practices	. healthy . feel . health choices . health practices . learn . think	How health affects emotions Differences in people	Laidlaw Health Book pgs 6-21
4	What are good health practices Building good health practices	good health practice energy alert training exercise	Setting good examples	Laidlaw Health Book pgs 6-21 Nurse to speak to class on good health practices and physical exams

STRAND # 1

Health knowledge, attitudes, decisions, and behavior

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Need for good health. Building good health. attitudes	health attitude disease	Extraordinary pressure with attitudes (drugs, smoking, etc.)	Laidlaw Health Book pgs 8-22
6	Need for good health. attitudes Types of knowledge Adding to knowledge	decision exercise contagious physical, mental, and social health experience observation cavity (ies)	Peer pressure Group pressure Group dynamics Decision making	Laidlaw Health Book pgs 8-23 Ethics Cards S.R.A. Pictures "Group Process" course material Simon and Simon "Values Clarification" Newspaper

STRAND # 2

Emotional and social health

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Getting along with others Helping others Courtesy Playing with others. Thinking of others	helping thank you together please sharing courtesy introduce.	Simple manners Simple introductions Telephone manners Feelings	Laidlaw Health Book pgs 20-33 BMS-DUSO Kit stories and activities BMS-Science 155.2 Scholastic-Kindle Set 2 How Do I Learn? 5 sound filmstrips (Personality Development- "Making Mistakes," "Who's Afraid?", "Do You Forget?",etc)
2	How families are alike and different. Family size and members Getting along with family members	families together happy sharing love helping family step-parent step-mother step-father step-sister step-brother. adoption	Step-families Adoption Different family structures Relationships with siblings Feelings and values	Laidlaw Health Book pgs 22-39 Puppetry Role playing BMS-DUSO Kit stories and activities BMS-Science 155.2 Scholastic-Kindle Set 2 How Do I Learn? 5 sound filmstrips (Personality Development-"Making Mistakes," "Who's Afraid," "Do You Forget," etc.) BMS-Psychology 153.4 "What Do You Think?" Series 6 sound filmstrips (Values, Lying, Cheating, Stealing, Promises, Thoughtfulness)

STRAND # 2

Emotional and social health

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Families: similarities and differences Growth of families Getting along with family members	. feelings . learning . brain . self-image . thinking friendliness jealousy love hurt fear anger disappointment	Emotions Causes of emotions Comparison of human parenting and parenting in animal species Step-families Other family structures	Laidlaw Health Book pgs 22-41 Puppetry Role playing BMS-DUSO Kit: Stories and Activities BMS-Psychology 153.4 "What Do You Think?" Series 6 sound filmstrips (Values, Lying, Cheating, Stealing, Promises, Thoughtfulness)
4	Being happy with yourself and others Getting along with others	. physical needs . strength . emotional needs . weakness authority responsibility opinion appropriate	Relationships at school Accepting authority Accepting responsibility Expressing opinions appropriately	Laidlaw Health Book pgs 22-41 BMS-DUSO Kit: Stories and activities Puppetry Role playing

STRAND # 2

Emotional and Social Health

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Feelings: different people importance causes	. anger . fear . worry . tense . emotions . pride	Community National/International impact Authority Responsibility Behavior of groups Constructive and destructive behavior	Laidlaw Health Book pgs 24-45
6	Causes of stress Stress may be helpful. Stress may be harmful. What to do about stress	. ulcer . stress . frustration . hormones . psychologist . experiences . emotions . competition	Sports: stress motives outcomes "success" and "failure"- (define) Counseling and therapy Academic stress and competition (tracking)	Laidlaw Health Book pgs 24-47

STRAND # 3

Growth and development, senses, nervous system, skeletal system, circulatory system, musculatory , and respiratory system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Ways of growing Physical growth New teeth and growth. Independence and growth Social growth Shaping growth	. grow . teeth . growing . meals . bigger . sleep senses	Senses: sight, touch hearing, taste, smell	Laidlaw Health Book pgs 34-49 Classroom growth chart Classroom lost tooth chart BMS-DUSO Kit - Stories of Independence. "John Teaches Himself", etc. BMS-Blood and Guts; Allison, Linda 612A All About You. . . Educational T.V. Science program
2	Continuity of growth. Visible signs of growth Unseen growth Mental growth Social growth Doctor's aid to growth Helping oneself growth	. grow . learning . others . inside growth . growing . learned . parts . doctor	Senses: sight, touch, hearing, taste, smell	Laidlaw Health Book pgs 42-57 Classroom growth chart BMS-Blood and Guts; Allison, Linda 612A All About You... Educational T.V. Science Program

STRAND # 3

Growth and development, senses, nervous system, skeletal system, circulatory system, musculatory , and respiratory system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Nervous and skeletal systems Changes in a growing body Growing problems	. vocal cords . messages . taste buds . think . muscle . brain . bones . learn . taste . hear . touch . smell . see . move . talk . impulses.	Senses Muscular System (use of muscles) Purpose of bones: support movement protection Color blindness Night blindness	Laidlaw Health Book pgs 42-65 BMS-Blood and Guts; Allison, Linda 612A
4	Circulatory System Skeletal System Muscular System Ways of growing Rates of growing	tissue systems organs smooth muscles. striped muscles. joints cells circulation . femur . tibia . pelvis . filanges . ligaments . tendons . cartilage . vertabrae . humerus	Exercise Naming muscles, types, and uses Naming bones Naming joints Purpose of bones: support movement protection blood cell production Nervous system Memory	Laidlaw Health Book pgs 42-63 BMS-Blood and Guts; Allison, Linda 612A Filmstrip: "Everybody Has One " X-Rays BMS-Science "The Human Body" Transperencies Spirit Duplicating Masters

STRAND # 3

Growth and development, senses, nervous system, skeletal system, circulatory system, musculatory , and respiratory system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Glands and growth Variables that control growth Differences and problems	. hormones . pituitary . thyroid . pineal . thymus . adrenal . pancreas . gland . heredity . environment . proteins . minerals . vitamins . mentally retarded . hyperventilation	Overweight Underweight Uneven growth (Scoliosis) Respiratory System Note: pgs 142-148	Laidlaw Health Book pgs 46-69 BMS-Blood and Guts; Allison, Linda 612A Visit from school nurse BMS-Science "The Human Body" Transparencies and Spirit Duplicating Masters
6	Physical growth (endocrine) Emotional growth Social growth	pituitary gland thyroid gland adolescence privileges/ responsibilities.	Aging	Laidlaw Health Book pgs 50-65 Materials from the "Teaching and Learning About Aging" Project BMS-Blood and Guts; Allison, Linda 612A BMS-Science "The Human Body" Transparencies and Spirit Duplicating Masters

STRAND # 4

Safety and first aid

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Safety going to and from school Safety crossing streets Safety at a bus stop Bus safety Safety and strangers	strangers traffic lights careful obeying watching crossing reflective crosswalk exit route	Bike safety Playground rules for safety Safety signs Safety at night Car safety Fire drills-home and school	Laidlaw Health Book pgs 50-65 DUSO Kit-"The Traffic Song" story Peabody Language Development Kit-Street safety discussion cards Safety signs BMS-Useful Arts 614.85 "Fire Department Helpers" Picture Story Study Print Set BMS-Social Sciences 371.7 "School Safety" Walt Disney Study Prints BMS-Social Sciences 371.7 "School Bus Safety" Walt Disney Study Prints
2	Safety practices Playground safety Bicycle safety Safety and skating Safety around animals Safety at home Water safety Safety at school	safe animals bicycle school playground water skating home reflective pedestrian	Weather safety Street safety Car safety Fire safety Fire drills-home and and school Bike inspection Safety while cooking Safety with toys Poisonous house plants: poinsetta schefflera rhubarb leaves	Laidlaw Health Book pgs 59-75 Street signs Police talk-bike inspection and bike safety BMS-Useful Arts 614.85 "Fire Department Helpers" Picture Story Study Print BMS-Social Sciences 371.7 "Street Talk" Sound filmstrips and teaching aids ("Traveling Feats", "Safety")

STRAND # 4

Safety and first aid

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Car safety Bicycle safety Safety from fires Water safety	. safety belt . fire extinquisher . hand signals . traffic signs . life jackets . exit . route . destination. . fire drill	Safety during storms Bike inspection Appliance safety stove refrigerator disposal lawn mower power cords wood stove	Laidlaw Health Book pgs 66-83 BMS-Social Sciences 371.7 "Street Talk" Sound filmstrip, and and teaching aids ("Traveling Feats", "Safety") Movie: "Snuffy the Fire Engine" (available from Burger King) Fire drills at home and school BMS-Useful Arts 614.85 "Fire Department Helpers" Picture Story Study Print
4	Why accidents happen Preventing accidents First aid	. safety practices . prevention . first aid . bruises	Bike safety Electrical safety Fire safety Fire hazard Fire drills Appliance safety	Laidlaw Health Book pgs 64-85 Street signs International symbols Resource people: police, firemen BMS-Social Sciences 371.7 "Street Talk" Sound filmstrips and teaching aids ("Safety")

STRAND # 4

Safety and first aid

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	First aid: cuts, broken bones, choking Safety in sports and activities	puncture first aid germs antiseptic maneuver cardio-pulmonary resuscitation	Heimleich Maneuver C.P.R. E.M.T. Program Red Cross First Aid Tooth and eye injuries	Laidlaw Health Book pgs 70-93 E.M.T. Police Red Cross P.E. teacher BMS-Social Sciences 371.7 "Street Talk" Sound filmstrips and aids ("Wheels and Safety)
6	Safety Fires Storms Earthquakes Short or stopped breath, frost-bite, electric shock	flammable tornado (watch/warning) electrical storm artifical respiration blizzard hurricane earthquake hurricane warning	Natural gas Wood/coal stoves	Laidlaw Health Book pgs 72-89 Electric Power Company Natural Gas Company BMS-Social SCience 371.7 "Street Talk" Sound filmstrips and teaching aids ("Wheels and Safety")

STRAND # 5

Preventive health care, illness, and disease

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Symptoms of colds Causes of colds Spreading of colds Keeping colds from others Recovering from colds Cold prevention	cold catch catching caught spreading staying well contagious prevention temperature fever	Care with medicine	Laidlaw Health Book pgs 66-81
2	Seeing and safety Natural eye protection Care of eyes Eye doctor's role Hearing and safety Care of ears Ear doctor's role	eyes glasses ears sounds hear see hearing doctors seeing protected hearing impaired blind braille contacts hearing aid	Hearing impairment Blindness Sign language	Laidlaw Health Book pgs 76-93 Masters on aid for hearing impaired persons Hearing aides and testers Community resource people

STRAND # 5

Preventive health care, illness, and disease

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Effects of illness Germs Hereditary diseases Fighting illness	. germs . doctor . colds . illness . measles . diabetes . headache . allergies . cerebal palsy . hereditary	Other hereditary diseases	Laidlaw Health Book pgs 84-103
4	Problems of being ill. Communicable diseases. Defense against disease	. communicable . antibiotics . tuberculosis . sulfer drugs . protozoans . antibodies . small pox . bacteria . vaccines . boosters . virus . immune . germs . fungi . innoculation. . sanitation . sympton	Body defenses Respiratory system	Laidlaw Health Book pgs 86-107

STRAND # 5

Preventive health care, illness, and disease

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Chronic disease Control of chronic disease	. chronic disease . rheumatic fever . air pollution . environment . emphysema . alcoholism . cirrohsis . allergies . diabetes . hereditary . cancer . carcinogen(ic). F.D.A.	Types of cancer: blood bone organ Health in other countries Current issues in cancer and cancer causing agents	Laidlaw Health Book pgs 94-113 American Cancer Society
6	Importance of nervous system and health Importance of sense organs and health Controlling disorders of the nervous system Controlling disorders of the sense organs.	nervous system . cerebral palsy . ophthalmologist . encephalitis . spinal cord . meningitis . epilepsy . cochlea . retina . cornea . impulses . rabies . pupil . image . lens . iris . retardation. stroke . optometrist.	Brain damage with regard to control areas in the brain stroke retardation	Laidlaw Health Book pgs 96-115

STRAND # 6

Nutrition and the digestive system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Importance of meals Importance of teeth How to brush teeth How to floss teeth	. breakfast . eating . dentist . supper . dinner . lunch . teeth . brushing . flossing . healthy snacks . nutritious . basic food group	Basic food groups Breakfast importance Grocery store play Healthy snacks	Laidlaw Health Book pgs 82-97 Visit by dental hygenist Film-"The Big Table" Grocery store basic food group activities BMS-Food Your Choice Kit Level 1
2	Foods we need Four basic food groups Nutritious meals	. fruit . cereal . cheese . vegetable . meat . healthy . bread . milk . meals . eating . foods . eat . non-nutritive.	Meal planning "Junk" food vs healthy foods	Laidlaw Health Book pgs 94-113 Film-"The Big Table" Class breakfast BMS-Food Your Choice Kit Level 1

STRAND # 6

Nutrition and the digestive system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Why people eat Digestive system Four food groups Making choices about food Eating problems	. small intestine . large intestine . waste . blood vessels . overweight . underweight . anus . acid . brushing . dentist . tooth decay . dental hygenist. alternative . producers . consumers . stomach .	Food sources and alternatives Food chains Concept of producers plants Actual location of organs: heart, stomach, etc.	Laidlaw Health Book pgs 104-125 School Dietitian BMS-Food Your Choice Kit Level 2
4	Why people eat Needed foods Good eating practices. Care of teeth and gums.	. fats . vitamins . minerals . plaque . floss . carbohydrates . proteins . cavities mouth esophagus stomach intestines. anus	Digestive system Dental hygiene Sanitary food preparation and storage i.e. summer salads clean work area cooking items "Red Tide" and seafood Types of teeth: incisors - cut cuspids - tear bicuspids - crush molars - grind Alternatives to Brushing	Laidlaw Health Book pgs 108-129 Dental Hygienist School Dietitian BMS-Food Your Choice Kit Level 2

STRAND # 6

Nutrition and the digestive system

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	What food does How you digest food How nutrients travel to your cells Foods for good health.	. nutrients . minerals . chyme . esophagus . plasma . intestine . arteries . lymph . carbohydrates . vitamins . pancreas . capillaries . veins . proteins . saliva . bladder . kidney . villi . appendix . duodenum . urine . fecal matter. . bowel movement. . dialysis . arterial sclerosis . urethra	Dissection Trace nutrients from mouth to anus: •digestive •circulatory •elimination •urinary system	Laidlaw Health Book pgs 116-133 BMS-Food Your Choice Kit Level 3
6	Foods and their nutrients A balanced diet Preparing foods for eating Wrong ideas about food	. proteins . nutrients . carbohydrates . oxygen . vitamins . minerals . perspire . appetite . "junk food".	Diet and behavior relationships: hyperactivity with sugar and additives blood pressure with salt Diet and health: hardening of the arteries scurvy	Laidlaw Health Book pgs 120-145 BMS-Food Your Choice Kit Level 3

STRAND # 7

Environment, conservation, and pollution

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	People who keep school environment clean Keeping school environment quiet Keeping a school lavatory clean Keeping a playground safe	. classroom . playground . neat . clean . quiet . lunchroom . lavatory . bathroom . maintenance . janitor . custodian . duty	Classroom and individual responsibility Classroom duties School maintenance workers and their duties	Laidlaw Health Book pgs 98-113
2	Home environment Safety in the home Noise pollution in home. Clean home environment Water conservation in home Electrical power conservation in home	. safe . home . water . noise . neat . electricity . quiet . loud . clean . maintenance . conservation	Conservation practices in school Home maintenance	Laidlaw Health Book pgs 114-131

STRAND # 7

Environment, conservation, and pollution

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Parts of a neighborhood Importance of a neighborhood Taking care of a neighborhood	environment litter neighborhood pollution recycle sanitary disposal composte mulch	Pets in the neighborhood Noise pollution Sanitary waste disposal Recycling: paper metal glass oil (to gas stations) garbage (composte)	Laidlaw Health Book pgs 126-143
4	Need for water Water conservation Water pollution Fighting water pollution	reservoirs pollution conservation ecology recycle phosphates	Conservation Ecology Recycling Well and aquifer pollution Salt and phosphate pollution	Laidlaw Health Book pgs 130-149 EMS-Science 577, Eye Gate Life a Unique Phenomenon. 4 sound filmstrips ("Adaptation for Life", "Energy and Life")

STRAND # 7

Environment, conservation, and pollution

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Need for air How oxygen gets to to your cells Problems of air pollution Fighting air pollution.	. hemoglobin . diaphragm . oxygen . nostrils . trachea . bronchial tube . bronchitis . respiratory . phlegm . exhale . inhale . larynx . CO_2 . air pollution . nicotine . cancer . emphysema. . tars . addiction. . ozone . fluorocarbons. . emissions . regulations	Smoking Ozone layer and fluorocarbons Emissions: gases particulates government regulations	Laidlaw Health Book pgs 139-161
6	Pesticides Radiation Noise Solid waste	. Cancer . Nuclear . litter . recycled . pollution . radiation . pesticides . solid waste . accumulate . environment . radioactive . noise pollution . sodium vapor-lights . mercury vapor-lights . decibel	Light pollution Study Gypsy Moth and control methods: chemical biological Herbicides Toxic waste disposal	Laidlaw Health Book pgs 146-177

STRAND # 8

Health information, products, and services

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Safe and unsafe products.	safe not safe poison.	Poisons and "yuck face" and skull and cross-bones labeling	Laidlaw Health Book pgs 116-125
2	Medicine use and safety precautions	medicine bottle label doctor safe physicians. pharmacist.	Poisons Poison Control Center (1-800-682-9211)	Laidlaw Health Book pgs 140-177

STRAND # 8

Health information, products, and services

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Health and safety workers. Some health workers Some safety workers	. health workers . safety workers . hospital . environmental health workers . x-ray . lab . doctor . nurse . custodians	Careers Town Board of Health (country and state) Food and Drug Administration	Laidlaw Health Book pgs 144-161
4	Health aids: choosing and using them	. health aids . health information . products . services . community . water pick . floss . pharmacist . prescription . medical specialist . optometrist	Dental health Prescriptive drugs Pharmacy-drug store	Laidlaw Health Book pgs 150-167

STRAND # 8

Health information, products, and services

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Need for health information Wrong ideas Getting good health information (expert vs. advertisement	health: information products services clinic quack pharmacists	Logic Evidence Medical Associations	Laidlaw Health Book pgs 163-179
6	Important health products and services Quacks and quackery Choosing health product and services	health product health service pneumonia quackery tetanus	Search for quackery Develop your own "quack" commericals	Laidlaw Health Book pgs 173-191

STRAND # 9

Dependency - causing substances: product safety and product abuse

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
1	Safe and unsafe products and food Importance of asking first before eating, drinking, medicating. Medicine Taking things from strangers	. eating . ask . drinking . not safe . safe . cut	See strand 8	Laidlaw Health Book pgs 114-127
2	Using medicine when ill or hurt Doctors and pharmacists Reading labels on medicine	. medicine . bottle . safety . label . doctor . safe . pharmacist.	See strand 8	Laidlaw Health Book pgs 132-149

STRAND # 9

Dependency - causing substances: product safety and product abuse

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Use of drugs Medicine Caffeine, alcohol, tobacco Making choices about drugs	. drugs . medicine . aspirin . tobacco . penicillin . caffeine . alcohol . nicotine . dependency.	Drug dependency Product tampering: health aids drugs foods Tamper-resistant packaging of over-the-counter drugs	Laidlaw Health Book pgs 162-181
4	Value of drugs Abuse of drugs Fighting drug abuse	. over-the-counter . tranquilizers . pharmacist . abuse . dependency.	Drug dependency Product tampering: health aids drugs foods Tamper-resistant packaging of over-the-counter drugs	Laidlaw Health Book pgs 168-183 Police as resource

STRAND # 9

Dependency - causing substances: product safety and product abuse

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Tobacco Alcohol	. nicotine . emphysema . cirrhosis . cancer . chronic . bronchitis . abuse . alcoholism	History of tobacco Economics of tobacco History of alcohol Economics of alcohol Product tampering: health aids drugs foods Tamper-resistant packaging of over-the-counter drugs	Laidlaw Health Book pgs 182-195 Alcoholics Anonymous guest speaker Nurse - speaker
6	Why people abuse drugs Depressants Stimulants Hallucinogens and other substances Controlling drug abuse Dependence on drugs	. drug abuse . tolerance . aerosal sprays . cocaine . hallucinogens . alcohol . solvents . hallucinations . inhaling . L.S.D. . depressants . barbiturates . marihuana . stimulants . narcotics . amphetamines . tranquilizers . physical dependence psychological dependence addiction withdrawal antidote	Drugs Paraphanalia law General laws Community involvement "CODE" "ABCD" Family involvement Tobacco Alcohol Product tampering: health aids drugs foods Tamper-resistant packaging of over-the-counter drugs	Laidlaw Health Book pgs 192-217 American Cancer Society - films, posters, and pamphlets Police Dept. presentation Drug Addict - guest speaker Nurse - speaker ABCD - Acton-Boxborough's Concerned about Drugs F.D.A.

STRAND # 10

Health organizations

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
3	Health workers and organizations	. work . health workers . fire department . crossing guards . safety workers . safety engineers . nurses . environmental/ . health workers . medical doctors . dentists & helpers . x-ray pictures . police department . lab . hygienist . technican . nutritionist . nuclear medical technican	Careers	Laidlaw Health Book pgs 146-153
4	Work of a health dept.. Health department	. sanitation . epidemic . prevention . plague . communicable . diseases . counselor . therapist . psychologist . psychiatrist	Mental health workers	Laidlaw Health Book pgs 184-199

STRAND # 10

Health organizations

GRADE	CONCEPTS	VOCABULARY	RELATED TOPICS	MATERIALS/AUDIO VISUAL
5	Health laws Protecting the environment. Making laws work	. environment . bubonic plaque . pollution . (air, water, . noise, soil) . sanitary . rabies . immune . food and drug . laws	Citizen Action F.D.A., E.P.A. Conservation Organizations: Audubon Sierra Club	Laidlaw Health Book pgs 200-217
6	You, your family, and your health Local health department State health department U.S. Public Health Service. Cooperation for world health	. W.H.O. . contagious . diseases . deficiency . diseases . health dept. . sanitation . U.S. Public . Health Service . Food and Drug . Administration	World food sources World medical problems U.N.I.C.E.F. Oxfam	Laidlaw Health Book pgs 218-237

Human Growth and Development

INTRODUCTION

Recently the following exchange of letters appeared in the "Dear Abby" column:

Dear Abby:

I may be old fashioned, but I can't see teaching sixth and seventh graders sex in the schoolroom. They are a long way from needing that kind of information. Why rush them? If you start putting ideas about sex into their heads, first thing you know, they'll start experimenting.

No wonder we have so many unmarried mothers among teenagers. I read in your column that veneral disease is now an epidemic in this country.

What can be done to stop all this sex education, Abby?

Concerned in Illinois

Dear Concerned:

If there really were all the sex education you claim there is, we'd have less teenage pregnancy and VD - not more.

No one has to put "ideas" about sex into the heads of children. It's there already. Sexual feelings and curiosity about sex are natural and normal in all children. And so is experimenting.

Ideally, parents should provide their children with a proper sex education, but surveys show that most of them do not, so some schools provide it. Unfortunately, the only states that have laws requiring sex education in the schools are Hawaii, Kentucky, Michigan, Maryland, Missouri, and North Dakota. (Louisiana expressly forbids it.)

The old saying, "What you don't know, can't hurt you" is not true. On the contrary - it can hurt you. And it's hurting all of us.

INTRODUCTION - (Continued)

Abby's statement "What you don't know can hurt you" is one of the fundamental reasons the Human Growth and Development Project began in the Fall of 1980.

Our group originally set out to develop a curriculum and include only materials relevant to sex education. However, it was not long before we realized we were starting in the wrong place. Sexuality is intrinsic to human life. Therefore,our program could not be separated from a complete Human Growth and Development Curriculum.

The Laidlaw Health Book Series, which has been used in our classrooms for several years, served as the basis for the health section of this guide. Here the teachers will find the entire series arranged by concept strand and grade level. The guide includes: vocabulary lists appropriate to each strand and level, suggested topics for related study, and audio-visual materials and resources available to the teacher. It is hoped that this chart will be useful to the teacher in assessing the past experiences and future needs of our students.

The next sections of the guide were developed from both source research and original work. Great care was taken to create and select the best and most appropriate materials for our use. Included are: a list of child-oriented objectives, a program philosophy, a list of tips for the teacher, a glossary of terms appropriate to the curriculum, and of course, a chart arranged by concept strand and grade level including suggested activities, vocabulary words, and resources.

The Human Growth and Development Curriculum Guide is intended to provide the teacher with a useful source of basic information and strategies for use in the classroom.

PHILOSOPHY

"Human Growth and Development Curriculum"
Blanchard Memorial School
Boxborough, Mass.

The "Human Growth and Development Curriculum" deals with family living and life development issues. To insure healthy development in the growth of our students we must address physical, intellectual, emotional, social, economic, and psychological development issues, as they are affected by male/female relationships. It includes more than simple anatomical and reproductive information.

As educators, we address areas of individual, family and societal responsibilities, respect, privacy, and sensitivity to feelings. As an institution for education, we deal with questions and answers. We are in the "business" of knowledge. If a student shows the need for information, it is our responsibility to provide. We may direct a student to a text, a teacher, his family or, in some cases, his own conscience.

The cycle of life is the way of the world and human sexuality is a part of our society. Students in an elementary school may not need a detailed accounting of the ways of adult life, but as future adults and potential spouses and parents, they do need basic information to understand later learning and life experiences. Sexuality is a part of the total personality; whether child, adolescent, or adult. It is an integral part of the child's adjustment within his family and society.

Through this program a child will encounter many concepts in life, growth, and reproduction, and it is hoped he will come away with a better ability to make wise decisions affecting many aspects of his life. He will know the facts, will be able to develop standards and values, and further, will be able to relate learned information to immediate experiences.

It is a recognized fact that family living and human development information must and does begin in the home and is enhanced by the school. The school has the obligation to offer an education program which will strengthen the student's knowledge and character.

> We have suggested that teachers should stick to facts and preside over the discussion, making sure that the major issues get discussed. But mere facts and discussion are not enough. They need to be undergirded by a set of values. (We use the word *values*, not beliefs or dogmas. A church or church school has the right to teach a specific set of religious beliefs, dogmas, or rules about human sexual behavior, but a public school does not have that right.) The following six values should be acceptable to any community in our American democracy.

The value of information. Correct information is better than ignorance or the wrong information; it makes responsible action possible, while ignorance can lead only to irresponsibility. There is no evidence that sound knowledge leads to experimentation and trouble, for those who get into what we call "trouble" are usually those who are not truly and fully informed. There are people in every community who will argue for ignorance in matters that concern human sexuality, but we believe that the great majority favor information. Imparting information, and teaching people how to get it and use it, is a main function of the schools.

The value of responsibility. An action, sexual or otherwise, taken in the light of all its possible consequences, good and bad, present and future, can be called responsible. An action taken without regard for the consequences is irresponsible.

The value of control. Sex is a power, and, like any other power, it can be used for good or for bad. Therefore it must be controlled by the individual for good purposes. (Automobiles and fire are two other examples of power where responsible and knowledgeable control can mean the difference between benefit and tragedy.)

The value of consideration. The welfare and needs, both short-term and long-term, of oneself, of others involved, and of society, must be considered in whatever a person does.

The value of each individual person. The infinite value of others is worthy of our most caring and loving consideration.

The value of communication. It is good to have opportunities to talk over our questions and ideas, to test them out against the ideas of others, to make our feelings known and to learn the feelings of others through discussion and conversation.

* From: Sexuality and Human Values, Association Press/Follett Publishing Co., 1975., Mary S. Calderone M.D., M.P.H.

FOREWORD

The following article was found while collecting information for the Blanchard Memorial School Human Growth and Development Curriculum. It expresses a philosophy consistent with our own, though with emphasis on the junior high school and high school student.

"The School's Responsibility for Sex Education" was a unique find in that it offers historical, developmental, physchological, social, and emotional views of the need for effective human growth and development education.

The article addresses the need for this education at various developmental stages from early childhood through adolescence. In adolescence, rapid physical changes, coupled with great emotional and social upheaval, require particular sensitivity to the need for objective information.

Elizabeth K. Mooney, an Indiana University research associate, has written an informative article focusing primarily on the shared responsibility and role of the parent and school in human growth and development education. Her background as a former high school teacher, adolescent counselor, and psychotherapist has afforded her the opportunity to collect, consider, and codify information consistent with a philosophy we appreciate.

THE SCHOOL'S RESPONSIBILITY FOR SEX EDUCATION

Excerpts from Elizabeth Mooney

- BACKGROUNDS
- THE NEEDS FOR SEX EDUCATION
- TASKS OF ADOLESCENT DEVELOPMENT
- TEACHER QUALIFICATIONS
- SCHOOL AND COMMUNITY
- CONCLUSION

BACKGROUNDS

Education is the dissemination of useful information, a rational, accurate input from the collected body of knowledge relevant to any subject or discipline. The method by which this information is disseminated depends to a great extent on the needs of the individual and resources available to him. If we explore sex education from the point of view of general education, we find that the physiology and anatomy of sex is readily available in schools today. Most physical education and biology curricula contain correct basic information. However, if we consider inclusion of the psychological, sociological, and developmental components which are intrinsic to sex education, it would be hard to find programs which include them. Real and pertinent sex education is hard to come by in the United States.

In the past few years, there has been a renewed effort to put sex education into the public school. I say renewed because sex education certainly is not a new idea. In the 1920's a considerable effort was made to get sex education into schools. Some 540 normal schools have sex education courses in their curriculum. The focus of their program was to train future teachers to impart information about the human reproductive system and the dangers of venereal disease. This succeeded for a decade, and the job was considered completed. Again in the 1940's there was an effort to put sex education into public high schools. At a time when wars were raging in both Europe and Asia, it seemed important to reach the young people in the high schools the dangers of venereal disease and to provide them with some understanding of their feelings about their own sexuality to protect them from hasty marriage in an unsettled world.

Granted, the efforts in the 1940's were more successful than the efforts in the 1920's, but both programs failed to have any great impact because the scope of the program was limited. The material covered in the sex education courses in the 1920's was observation laced with morality. The programs, though well intended, were focused on providing information and guilt laden alternatives rather than information and psychological reassurance to the young.

Ironically, two scientific publications in 1948 and 1953 temporarily set sex education back many years. When Kinsey published his research about the sexual behavior of the human male and female, he set off a forest fire of criticism. His works were not seen as necessary scientific investigations, but rather as a challenge to public morality, a political issue, and a threat to religious teaching. Even today there are goups of unenlightened citizenry who criticize any program of sex education because they presume it to be a Communist plot meant to subvert the morality of the young. If those people were brave enough to investigate Communist theory, they would find that the Communist nations, the totalitarian countries of the world, provide minimal sex education, hoping they will have better control over their young people by not providing it. Shades of the Scarlet "A"!

It is this very issue, the control of the young people and the information they receive, which sends parents into a rage when sex education is proposed in many school systems. Again and again in this country we have heard the cry, "Sex education is the responsibility of the parents; it is not the responsibility of the school. How do we know what is being taught to our children if we do not have control of that information?" The sticky issues involved here are the differences between character education and education for human sexuality.

Rarely is any of the conflict resolved because there is seldom an open discussion of the differences between character education and sex education.

BACKGROUNDS (Continued)-2

School boards, in an attempt to resolve the problems created by a discussion of sex education programs, are faced with the rampant emotionality of parents and the inadequately prepared proponents of a sex education program. Who would dare to challenge a parent by saying to him, "What do you really know about human sexuality? What facts do you have? What ideas do you have? What do you know about the development of the young?" Rather school people take a defensive stance, and, all too often, the emotionally charged and irrational parent group wins, and the young people lose.

The principle of local autonomy of school systems, allows the school board of any community to include or exclude programs in sex education as the citizenry dictates. In the past ten years sex education programs have been put to the extreme test. Superintendents have been hired or fired because of the decisions about programs of sex education. Even though many educators and citizens see a distinct need for including sex education in the public school curriculum, it seems no one can agree how it should be taught, where it should be taught, and by whom it should be taught.

What, indeed, should be included in any program of sex education? There is even a problem about what to call a program in sex education. In some school systems it is called Family Living: in others it is called Contemporary Problems, Human Relationships, or Human Sexuality. In some systems it is taught as a separate course, an entity with a syllabus, with several teachers or one teacher, by outsiders, or even with a specific textbook as its total frame of reference. All of this leads to enormous confusion. Within the last three years a number of systems have taken a strong position. They have variously thrown out their sex education programs, tried to rewrite them, or simply said, "We're keeping what we have; we're going to wait for research to prove us right or wrong."

I have yet to hear of a school system where, when challenged on the instituting of a sex education program, a discussion was held relevant to cooperative efforts of home and school for informing the young about human sexuality. Somehow we are not brave enough to apply to the subject of sex education the ideas which guide us in the direction of good general education. We do not say to the parents, "Look, if our young people have the facts, if our young people have a great number of alternatives from which to choose when making decisions, and if our young people have an adequate description of the consequences of their own personal decisions, then they might be able to make better decisions regarding their own lives and the use of their own sexuality."

THE NEED FOR SEX EDUCATION

If I understand the American educational system correctly, its main goal is to educate the individual, to help the individual set his goals, and to maximize his potential- socially, economically, and psychologically. In short, one of the goals of education is to help produce an enlightened citizenry. All the verbiage, all the platitudes about the goals of general education, fall on admiring parental ears as long as the youngster whom we are educating is in the lower grades. As soon as the youngster reaches puberty, adults start to reverse themselves because of their feelings and the fears those feelings produce. Parents and educators tend to ignore emotional and factual needs of the young person, who is more in need of facts and ideas and alternatives when he is thirteen than when he was nine or ten years old.

At a time when facts and ideas,which would lead to good decision making and easy-to-live-with consequences,are very much needed by the young person, he is suddenly faced with the acne curtain,and a conspiracy of silence by the adults around him. It is evident-ask any teenager-that at a time when he most needs help in self-discovery and understanding his own sexuality, he must play a cloak-and-dagger game to find an opportunity to discuss his problems or investigate his alternatives in a forthright manner. At this point the accepted premise of general education seems to fall apart, especially in the area of human sexual development. Pubescent youngsters are confused because of the emotionality of the subject matter and a reticence by adults to level with them.

In the past five years there have been several small studies in which youngsters (age ten to fifteen) were asked to identify some of their personal problems. Though the questions were framed in a variety of ways, youngsters were expected to respond to the query, "what would you like to talk about with adults but do not have the chance to talk about with them?" The responses contained three universal categories: rules and freedom of decision, sexual feelings and information, and work expectations (money problems with parents and academic problems with teachers). The youngsters reported that they did not initiate the desired discussions because adults got mad when the subjects were mentioned or they (the kids) were too scared to bring up the subject. The youngsters, it seems, are on to us. How often have you given an annoyed response to shut off further discussion?

By the time youngsters are five or six years old they have a pretty fair idea about where they came from even if they have been fed the old found-you-in-the-cabbage-patch or stork-brought-you stories. Youngsters have enough sense to ask the question of their peers since they usually do not believe the fiction told by their parents. The anatomical questions about boy and girl differences are eventually answered, but the why-am-I-different questions are left unanswered, or else the kids are stalled by an I'll-tell-you-when-you're-older routine.

We are terribly generous with our children when they are small; we painstakingly prepare them for everything from the first trip to the dentist to their first meeting with the department store Santa Claus. We are less than generous with our youngsters who are leaving childhood and entering puberty. Girls are told that they are going to have some physical changes-they will develop breasts and have periods. But who tells them they are going to feel differently from the way they feel as children? Rare is the parent who says, "You are going to have a whole new body which you must get accustomed to living with, and it isn't always going to be easy." Growth and socialization processes are always painful. The youngster who is entering puberty should have some fair idea of what he or she will be as a person, and providing the idea should be a cooperative effort between home and school.

SEX EDUCATION (Continued) - 2

Youngsters have a right to know why the changes are taking place in them. Frequently no one explains that the final stage of physical maturity, when hormones activate the reproductive system, can be an emotionally painful and frightening expereince. The youngster also has the right to know there are differences in normality. How often have we seen a young person struggling with puberty, trying to be like someone he knows, blithely unaware that what he or she is as a person is not only important but interesting. Finally, everyone needs to know that he has a right to be comfortable with his sexuality. And if adolescents have the right, then they also have the right to talk to someone, that precious someone, when they are having difficulities handling their new found sexuality and the feelings that go with it.

Perhaps it would be useful for us to investigate where youngsters learn about their sexuality. Obviously, the first place where such learning goes on is at mother's knee. We discover which sex each of us happens to be. We are taught sex appropriate responses for the first few years of our lives, thereby indelibly imprinting on us our sex role in life as male or female. And after we have learned through verbal and nonverbal indicators what is expected of us as a boy or girl, we begin to become curious about what is expected of others, particularly the different or opposite sex. We begin to ask questions when we are three or four years old. How those questions are answered by parents determines how many more questions we will ask. If a child asks a question and gets a direct and accurate answer, but perceives nonverbal conflict in the attitude of the parent or adult answering the question, the youngster picks up the the disquieted mood and will not be comfortable in asking the adult for further information. Kids are much more astute in picking up nonverbal discomfort than we adults give them credit for being. By the time a child is six he has discerned the attitudes toward sex behavior held by his parents and older siblings, and he acts within the acceptable parameters of thoseattitudes if he seeks approval of the older group.

When our youngsters find they cannot ask questions of adults and get comfortable answers, they go underground. They observe and ask questions of their peer group. This means that the eight-to-eleven-year-old group becomes the major source of information, so that their sex education is based on shared ignorance. The signals and knowledge which youngsters do get from adults are easily misinterpreted, and since the young have limited means for discussing what they see and think or how they feel, the misinterpretation is perpetuated until puberty, when it can become a real problem.

It is equally important for us to know at what age kids learn specific things about their own sex functioning. For example, most youngsters of seven have a pretty accurate idea of what pregnancy is and that it happens to women, though they may have very erroneous ideas about sexual intercourse. It is common for the 10-year-old girl in the fifth grade to be shown a film and have a discussion about menstruation. Yet the youngsters who are getting this information may not have a clear understanding of how one becomes pregnant. It is not uncommon for a youngster of thirteen to be totally unaware of what is involved in conception even though he or she may know what happens in sexual intercourse.

Because they have only bits and pieces of information, young people tend to put their fantasy and scraps of knowledge together and come up with some pretty bizarre ideas regarding human sexual behavior. Forexample, a girl past menarche may conclude that she can get pregnant if she kisses a boy. Boys are often very badly shortchanged when it comes to getting information in early puberty. It is a rare school that provides young males with any information about their nocturnal

SEX EDUCATION (Continued) -3

emission or erections. One can find many examples like the youngster who, after conquering bedwetting, wakes up one morning with his pajamas and bed clothes wet and stained, terrified because now some new phenomenon over which he has no control is occuring. He strips the bed, knots his pajamas, throws the whole bundle into the hamper, and hopes his mother does not find out what happened.

A young male or female socially comfortable with his peer group might discuss sex with best friends. The best friends, however, are usually the same age and going through some of the same problems with their sexuality as the boy who has just had a nocturnal emission or the girl who is menstruating and worried about pregnancy. So the peer group is of very little value except to excite the problem. We still run into youngsters who think masturbation causes acne. The poor kids are doubly damned; not only do they look pimply and oily, they assume the whole world knows that they are masturbating. The process by which youngsters get information from their peers is colored by a typically adolescent manifestation; an intricate fantasy system which fills the gaps created by an enormous lack of information.

It is a rare parent who will talk to his youngsters about masturbation, and those who do usually talk about it in a negative way. And yet, we know from research that about 95% of all young males and well over half of the females masturbate. Masturbation is a perfectly normal developmental process, and we have not acknowledged it. Parents say they want to assume the responsibilities for sex education of their children, but judging from what youngsters tell educators, parents teach them very little factual information and certainly do not help them as they are going through the social processes and the fantasy-provoking situations of early adolescence.

About 80% of young females learn about menstruation from their mothers or sisters. Please note, girls receive information, but nobody bothers to teach boys about menstruation. Parents do not do a good job when teaching either boys or girls about nocturnal emissions. Rarely are youngsters told about nocturnal emissions, erection, or sexual intercourse, and kids have to find out about them through questions or exper ce among their peers. Mothers tend to do a better job of sex educating than fathers. Fathers seldom enter into the teaching situation with their kids. The lack of male parent participation is easy to understand in light of the perpetual deficiency in male sex education. No father chooses to appear foolish by revealing his ignorance to his child.

TASKS OF ADOLESCENT DEVELOPMENT

Anyone who has done some thoughtful study in the area of normal adolescent psychology has come across the five keystones of adolescent development. They are the development of: 1) a sexual identity as a man or woman, 2) initmacy, 3) emotional independence, 4) a value system of one's own, and 5) a life work goal. If we assume that adolescence is a bridge between childhood and adulthood or maturity, whichever term you prefer to use, then we must say that the five tasks of adolescence are the obstacles that are placed on the bridge. The child must fight his way through these obstacles in order to reach the other end of the bridge, which is adulthood. If we accept the tasks of adolescence as the essence of growing up, we also realize that the tasks of adolescence have sexual components. It is because of the sexual components that some of the problems in adolescence arise.

A young man seeking his sexual identity, his identity as a man instead of a boy, must look at his peers and at male models from the generation above him, and then he must decide what components he needs in order to identify himself as a man. He has had many role models from which to choose; now he must select those which are comfortable, strike out on his own, and set some goals for himself as a young man. He does not want to turn back; he does not want to fit into the family structure as a child. Familiar with that position, he wants to forge ahead and model himself after others whom he admires, maybe a sports figure, maybe a favorite teacher. It is almost always someone outside the home because he is now ready for the primary influence to come from outside. If at sixteen or seventeen a young man is coerced by his family into a discussion of his feelings about his sexual identity, he considers it a return to childhood status. He would certainly avoid such regression and would protect himself by avoiding such an encounter...

During adolescence all young people strive toward social and emotional independence, a final cutting of the apron strings, so to speak, a sense of self apart and distinct from the family. Frequently young people take the first step toward emotional independence in their efforts to establish relationships with those of the opposite sex. It is very unlikely that discussions about the nature of the relationship would be held within the family setting simply because it would jeopardize the independence of the young person.

Youngsters are often expected to participate in a plan which leads them to financial independence. Parents take pride in their children's enrichment of a savings account by contribution of baby-sitting or lawn-mowing money. Financial independence is encouraged and praised while emotional independence is interpreted as noncommunication, nonloving and even sneakiness. Parents are traumatized by their youngster's first efforts at emotional independence, and the most common reaction is to be hurt by the young person's desire to break away from the child dependency state.

Now we get into a very emotionally charged area of development, the explorations of the value system. It is widely held that a youngster develops his initial character system by the time he is seven or eight years old. He absorbs, by inclination and by direction, by nonverbal and verbal clues, the value systems of adults who are meaningful to him. Usually these are his parents and immediate family, his favorite teacher, his minister, his peer leader, or perhaps a favorite neighbor. A prepubescent child is always in a dependent state. He must toe the line and avoid parental displeasure in order to keep peace within the structure in which he lives. Most children have a pretty good idea what behavior is con-

sidered right and wrong within the confines of the child-world in which they live. A value system is defined in terms of the limits which are set for the young person, of what will be tolerated by those on whom he is dependent.

But when a child reaches puberty he is faced with the task of developing a value system of his own, and he does not start from scratch. He has the collective value system of his peer group to consider as he works out a value system of his own. He uses the input from the parental setting, from his adult role models, from the community at large, and he adds to these the various elements of the value systems he detects in his peer group. He then begins to experiment in order to develop a value system of his own. This is probably the most frustrating period of child development for both parents and their children. We call them turbulent teenagers or rebellious youth; we describe this stage of life with unflattering adjectives, and we forget that part of the problem is created by the youngster's attempt to work out a value system with which he can live.

The point of this explanation about the tasks of adolescence is that an impossible situation results when parents attempt to do all of the sex educating of a teen-age, adolescent, pubescent youngster. The cards are stacked against the success of this operation because the emotional ties between the young person and the parent are severly strained during adolescence, and it takes a neutral, understanding, and knowledgeable outsider to help the youngster realize what and who he really is.

It is evident from studies of youth in this country that young people do not totally reject or erase the value systems of their elders, their community, or their religious background, but they do modify, exchange, and in some way carve out a value system of their own with which they can live comfortably. If they are given the opportunity to examine that value system which they are about to cull and trim, and to examine the values with which they are experimenting, youngsters do not react as defensively as they do when denied the option of discussion and contact with other people who are going through some of the same problems.

The school has a tremendous potential for help. The setting is a natural one; it is the work focus for the adolescent. Discussion is a comfortable everyday experience in school, a neutral arena to discuss feelings, thoughts, ideas, and frustrations. It is beneficial to the student and a very important part of the responsibility of the school system to foster discussion in these areas.

TEACHER QUALIFICATIONS

A major advantage of the school is that it provides the very peer group a youngster most admires. Kids are always comparing themselves to other kids, always wishing themselves like others, and often they do not realize that the others whom they so admire reflect their admiration. If students are given enough opportunity to discuss and look at all of their problems and frustrations, they may realize the advantages of discussing common difficulties. Occasionally this can be done in a youth group setting, but certainly the school's availability makes it the most natural and convenient place for discussions of adolescent tasks.

A major soft spot in most school programs is the problem of teaching qualifications. Who should teach sex education? Where will this individual be trained, and how much responsibility for the content of any particular instructional program shall this individual be given? Where can we find an individual whose academic background is steeped in sociology, anthropology, and psychology, who has a working knowledge of embryology, genetics, anatomy, and physiology, who is an expert in child development, and who is comfortable with the material needed when teaching sex education or human sexuality; a person who is unshockable, who can establish rapport with students and colleagues and yet remain low-key in approach, who is respected by parents, and a person who is admired within the community? In that one individual we would have the makings of a superb teacher of sex education. This, as you have already concluded, is a rare individual.

Today we are not training students in our schools of education to meet these qualifications. We are not even coming close. We are not encouraging students in anthropology and psychology who have had a good background in biology to get the other qualifications so desperately needed to provide a good background as a sex educator. There is no reason to assume that this individual might not be the English teacher, the history teacher, or the physical education teacher. But it is reasonable to assume that this individual needs special training in order to take on human sexuality and development. The task of designing the program, an ongoing program, based on the needs of youngsters at any particular developmental level, takes a great deal of extra work, academic work, on the part of the teacher who wished to go into this field.

If there were one fundamental quality of an efficient teacher of sex education, I would pick being comfortable with the material. No matter how well educated an individual may be in the academics of sex education and child development, if he or she is not totally at ease with the subject material, youngsters sense it, respond negatively or discordantly, and the result is useless or distorted sex education.

SCHOOL AND COMMUNITY

Too often sex education has been considered the responsibility of either the parents or the school. This is much too simplistic. Rarely in life does one find mutually exclusive situations, and certainly in education there is no place for such absolutism. Sex edcuation is the responsibility of both the parents and the school.

The responsibilities of parents are to present the first sex information to the child as the child asks for it and to provide an atmosphere which encourages questions and discussion of sexual matters, just as other subjects are discussed within the family setting. Parents are responsible for setting behavioral limits for their children and for conveying values which represent the family's parameters of acceptable and commendable behavior. Parents certainly give a child his first impression of himself and his sense of worth, an extremely important concept which may influence the child's entire life. Parents can and should aid the school through cooperative efforts to help the individual youngster realistically integrate his personality. This means continuing contact between parents and teachers.

The school's ability to relate peer pressure to the student and his family, relieves tension for both. The school, with its more objective view and experience with many students, is aware of the developmental situations in the adolescent culture. Finally, the school represents all segments of the community or society and, as such, can accurately represent through teaching, the many views held within the various segments of the community. In this manner the school can provide the student with a better understanding of where he stands compared to his peers, his parents, his community, and his world.

CONCLUSION

Sex function is a natural endowment, it is as basic as sleeping or eating. The school cannot continue its dissemblance by allowing the dirty joke to be the community's source of knowledge about sex function. The next generation will have to fight through another mess we left for them, if sex education is not provided.

The first responsibility of the school in the area of sex education is to train and employ teachers who know their task and accept it with grace. The second responsibility is to recognize the community. By so doing, programs of instruction can reflect the developmental and cultural needs of the individual community. No single program is right for all school systems; we cannot borrow and swap curricula or philosophy as we do textbooks. The third responsibility of the school is to get started. We have been talking about education in the area of human sexuality for half a century. Let us get it together: use our skills, research, graduate schools, and trust to get the education to the kids. We know the whys and wherefores; we just have not formed them into resolutions for action.

TIPS FOR THE TEACHERS

1. The teacher must have a wholesome attitude toward human sexuality and feel comfortable teaching the Human Growth and Development Curriculum.

2. Have students hand in anonymous questions before teaching any of the units in which students may be initially uncomfortable or embarrassed. The teacher can determine the areas to emphasize, identify misinformation, and help place the students at ease. In this way the students will not worry about asking "silly questions".

3. Questions which are asked and not answered is education of a negative nature. If students can verbalize problems or concerns, an adult must be able to give frank and honest answers. If the teacher does not have a ready answer then he should be willing to get the answer or direct the student to an appropriate resource.

4. Use the technique of counter questioning and discussion. This encourages critical thinking and helps students work out their own answers to some of the questions.

5. The teacher should be prepared to use proper anatomical and scientific terms as casually as he uses the words: eyes, ears, nose etc. Questions proposed at any grade level can be answered simply, directly, and satisfactorily.

6. Remember, we are not in the business of "cabbage patch" answers, nor are we to be involved in "street talk", or slang to explain important issues. Any questions or comments made in either extreme should be dealt with - explained and discouraged because of the inappropriateness. We have the responsibility of being a source of information with proper deference to the community in areas of values, morals, and ethics.

7. The program should be taught on the level of the students' understanding and maturity, making use of practical examples within their life experiences. Material can be repeated at different grade levels as long as it is presented at the maturity level of the pupils.

8. "Human Growth and Development" should be anticipatory in structure rather than "too little, too late".

9. Small group discussions are helpful in evaluating students' reactions and stimulating free participation. The teacher should be ever sensitive to the tenor of the attitude of students.

10. Role-playing is a good technique to invite students' critical thinking.

11. A teacher should seek the help of another professional when he feels his knowledge is limited (nurse, principal, etc.).

12. A medical dictionary and curriculum guide glossary maybe helpful.

13. There is a need to review new films and resources constantly to supplement the program. All new materials must be approved by the administration.

14. Resource material, appropriate to the student's maturity, maybe left available where students may peruse without asking.

TIPS FOR TEACHERS - 2 (Continued)

15. Teachers should be objective. Try to avoid personal bias but feel free to explain the varied views society tends to offer. Do not moralize or take a partisan view. Present the facts and guide students toward critical evaluation of problems. Answer all questions, or the child will go to someone who may be misinformed. The teacher can always suggest that the child discuss it further with his/her parents. By answering questions clearly and frankly, the teacher will avoid the possibility of being misunderstood.

16. Be aware of the total "Human Growth and Development" curriculum. This view of scope and sequence will help define individual teacher responsibilities.

17. Avoid morbid questions. Children will often contribute stories of unpleasant incidents; "I saw a child born without arms, etc.". Turn this to the positive; "Though this does happen, it is not the common situation." or "Reasearch in medical science is trying to solve these problems". (upper level)

18. Use common sense and judgment with regard to various codes, customs and community ideals. (You will never satisfy everyone!)

19. Relax and enjoy the challenge. You do have something to offer. You are involved in the basic growth of your students.

BLANCHARD MEMORIAL SCHOOL

493 MASSACHUSETTS AVENUE
BOXBOROUGH, MASSACHUSETTS 01719

HENRY L. LAHAR, Principal
617/263-4569

JOAN I. OKA, Director of Special Education
617/263-4844

Human Growth and Reproduction

Dear Parent,

In the Blanchard Memorial School, a health program is a standard portion of the yearly curriculum. Your child has been involved in the health curriculum throughout this academic year.

The next topic to be covered will be Human Growth and Reproduction. The curriculum covers topics such as puberty, reproduction, glandular changes, and basic human biology.

This unit may foster a number of issues which may be best discussed in a home environment. We will not be covering abortion, venereal disease, contraception, or any of the more highly charged emotional issues.

Please feel free to contact me for further information.

Sincerely,

BLANCHARD MEMORIAL SCHOOL
BOXBOROUGH, MASSACHUSETTS

_____

To Parents of 5th Grade Boys:

Plans have been made to discuss maturation with the 5th grade boys on _____. _____ will head the discussion.

Janice Massarelli
School Nurse

PLEASE DETACH AND RETURN TO SCHOOL

My son may participate in the discussion.

Yes _____ No _____

_____

Parent's Signature

BLANCHARD MEMORIAL SCHOOL
BOXBOROUGH, MASSACHUSETTS

_____

Dear Parents of 5th Grade Girls:

Plans have been made to show the film "Naturally - a Girl". This film is an explanation of the maturation process. It will be shown _____.

Janice Massarelli
School Nurse

PLEASE DETACH AND RETURN TO SCHOOL

1. My daughter has permission to see the film. Yes _____ No _____

2. I will attend the preview showing on _____ in the Nurse's Office.

   Yes _____ No _____

_____

Parent's Signature

GENERAL OBJECTIVES

To help the child:

1. Understand that growth, development, and reproduction are natural and vital to the continuity of life.
2. Develop a wholesome attitude toward the process of growth and development, with respect and understanding of one's self.
3. Develop an understanding of the physical, mental, emotional, and social phases of growing up thus alleviating fears and anxiety related to maturing.
4. Be willing to discuss the problems of growing up with dignity and less embarrassment.
5. Accept each individual as unique, and while there is an average rate of growth and development, no two people will follow the same growth pattern.
6. Know and use the appropriate terminology in reference to himself, within his own knowledge and capacity.
7. Know and understand sex differences in boys and girls and their physical maturing rate.
8. Show appreciation for life and willingness to accept the responsibilities that accompany it.
9. Appreciate the family as the basic unit of society, and show willingness to accept responsibility and loyalty toward the family unit.
10. Appreciate the important functions the family members have in the community and what contributions he can add to them.
11. Understand that families differ from one another.
12. Understand environmental forces as they affect growth and development of living things.
13. Understand the need and respect for privacy in personal and family matters.
14. Distinguish between facts, false notions, and superstitions in matters relating to growth, development, and natural body processes.

Human Growth and Development Strands

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 1

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Each child is an individual and differs in his social, emotional, and physical development. 2. All first graders are different in some ways and alike in others. 3. Each child is good at doing certain things and needs to learn how to do other things better. 4. Each individual needs and wants time to be alone and time to be with friends and family.	Use Unit 1 DUSO activities, stories, songs, and posters. Read and discuss related stories with the class. Use Magic Circle activities. Show suggested filmstrips and discuss. Discuss their favorite activity at home and at school. Bring in photographs of self to share and make displays. Make self portraits (crayon) with fancy frames and name plates. Compare each individual's fingerprints. Use growth charts (compare fall, winter, and spring heights). Tape record voices and play them back for identification games. Discuss how each student is proud of his differences. Draw pictures and tell about something each child could not do when they were a baby, toddler, or preschooler, but can do now as a first grader. Discuss and draw pictures of activities each child likes to do alone, and activities they prefer to do with friends or family. Have a Magic Box for students to look into to discover "the most special person in the world." After each child has looked in the mirrored box, have a discussion of each person's specialness.		BMS-DUSO Kit stories and activities Unit 1-"Understanding and Accepting Self" Magic Circle activities BMS-Psychology 155.2 Scholastic-Kindle Personality Development Who Am I? 5 Sound filmstrips BMS-Parnette, Forte and Loss. I've Got Me and I'm Glad. Nashville: Incentive Publications, Inc., 1979. BMS-Striker, Susan. The Second Anticoloring Book. Winston, 1979. (See other Anticoloring Books) BMS-Duplicating Masters, Glad to Be Me. Walt Disney Productions. BMS-Duplicating Masters, The 'Me' Book, Self-Awareness Activities. Milliken Publishing Co. To read to class: BMS-Leaf, Munro. Ferdinand. N.Y.: Viking Press, 1936. BMS-Lionni, Leo. Frederick. N.Y.: Pantheon Books, 1967. BMS-Bishop, Claire and Weise, Kurt. The Five Chinese Brothers. N.Y.: Coward-McCann, Inc. 1938.

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 1
(Continue)

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Have each child make a self-collage mirror with sections of the mirror "reflecting" different personal likes. (foods, clothing, etc.) Mirror can be backed with foil. Have each child create a medal for what they know how to do best. (See this and other related activities in the Anti-Coloring Books.) Use self-awareness activities suggested in I've Got Me and I'm Glad. (See pgs. 9, 25, 37, 39, 48). Use self-awareness activities suggested in the duplicating masters books, Glad to be Me and The 'Me' Book.		BMS-White, Florence. How To Lose Your Lunch Money. Los Angeles: Ward Ritchie Press, 1978. BMS- Gramatky, Hardie. Little Toot. New York: Putnam, 1939. BMS-Alexander, Martha. Sabrina. N.Y.: Dial Press 1971. BMS-Piper, Watty. The Little Engine That Could. N.Y.: Platt Monk, 1945.

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 2

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Each child is an individual and differs in his social, emotional, and physical development. 2. All people are different in some ways and alike in others. 3. People learn from their successes and failures. 4. Each individual needs privacy.	Review Unit 1 DUSO activities, stories, songs, and posters. Use Group Process activities. Read and discuss related stories. Show suggested filmstrips and discuss. Make fingerprints on ink pad and compare. Bring in photos of self to share. Each child can make special child bulletin board over the course of the year. Discuss what we learn from successes and failures. Discuss school discipline policy-purpose and effect. Have each child tell and draw pictures of a success they are proud of. Write a "hope" list, goal list or resolution list together of how the class would like to improve as a group. Repeat activity for individual improvements. Make before and after scenes or drawings of what they couldn't do do in first grade, but can do now. Have each child repeat activity showing something they can do well in 2nd grade but project to do better in later years. Make silhouettes and compare with guessing games.	success failure discipline privacy private property	BMS-DUSO Kit stories and activities. Unit 1-"Understanding and Accepting Self" Group Process material BMS-Social Science 370.11 Getting to Know Me 2 Sound Filmstrips "Recognizing Abilities" "The Importance of Being Yourself" BMS-Parnette, Forte, and Loss. I've Got Me and I'm Glad. Nashville: Incentive Publications, Inc., 1979. To read to class: BMS-Mayer, Mercer, and Marianna. Mine! New York: Simon and Schuster, 1978. BMS-Sharmat, Weinman. I'm Terrific. New York: Holiday House, 1977. BMS-Lexau, Joan M. I Should Have Stayed In Bed. New York: Harper and Row, 1965. BMS-Viorst, Judith. Alexander and the Terrible, Horrible, No Good, Very Bad Day. New York: Atheneum, 1972.

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 2
(Continue)

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Make a class chart or collage showing activities the children like to do alone and activities they prefer to do with others. Discuss why all people like and need privacy at times. List private property (desk, room, purse, drawers, etc.). Discuss respect for individual property. Discuss benefits of private time (reading time, relaxation, etc.) Use self-awareness activities suggested in I've Got Me and I'm Glad (See pgs 10, 24, 25, 29, 61, 71).		

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 3

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Each child is an individual and differs in his social, emotional, and physical development. 2. There are times when an individual needs privacy. 3. Individuals grow in different ways and at different rates.	See DUSO kit stories and activities. Use Magic Circle and Group Process activities. Show suggested filmstrips and discuss. Write a story about "The Times I Like to Be Alone". Read and discuss related books. Write "A Story About Me". Discuss the factors that make each child unique. Have a hobby show. Have a talent show. Discuss the meaning of privacy. Discuss trespassing and the ways in which we trespass on other's property or privacy. Role play with puppets situations involving trespassing and need for privacy. Discuss the ways of growing other than physical (through experience, knowledge, social interaction). Develop a questionnaire with the class to find out when each student reached certain baby milestones (smiling, sitting up, crawling, first step, toilet training, riding a bike, etc.).	individual personality unique privacy conscience success failure acceptable interaction talent	BMS-DUSO Kit stories and activities Unit 1-"Toward Self Identity: Developing Self-Awareness and a Positive Self-Concept" Magic Circle activities Group Process material BMS-Social Science 377 Developing Basic Values 2 Sound Filmstrips "Respect for Property" "Acceptance of Differences" Farnette, Forte, and Loss. I've Got Me and I'm Glad. Nashville: Incentive Publications, Inc., 1979. Suggested class reading: BMS-Lionni, Leo. Alexander and the Wind-up Mouse. New York: Pantheon Books, 1969. BMS-Wittels, Harriet and Greisman, Joan. Things I Hate! New York: Behavioral Publications, 1973. BMS-Mack, Nancy. Why Me? Milwaukee: Raintree, BMS-Klein, Norma. Girls Can Be Anything. Toronto: Clarke and Irwin, 1973.

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 3

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Use self-awareness activities suggested in I've Got Me and I'm Glad. (See pgs 13, 14, 16, 26, 29, 84).		
	Compare all completed "Baby Milestones Questionnaires".		
	Make a list of one major learning accomplishment for each year of your life.		
	Have a "Problem Box". Any child may anonymously deposit a problem and the class can discuss solutions.		

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 4

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Each individual experiences and expresses feelings and emotions differently. 2. Each individual develops control, tolerance and acceptance of emotions. 3. Individuals vary in their responses to the events in their environments. 4. Each individual sets goals based upon desires.	Read and discuss the related stories. Use DUSO Kit stories and activities: Units 1 and 7. Use Magic Circle Activites. Show suggested filmstrips and discuss. Compare and contrast different emotions. Write and illustrate a story about "Things That Make Me Mad" or "Things that Make Me Happy." Make a "Collage of Myself". Fill a silhouette with pictures and feeling words that describe each individual. Draw "Patience Pictures," pictures of things that took patience to learn. Write a story that ends with "so all my worrying was for nothing!" Discuss how each individual might respond differently in similiar situations. Compare and contrast humans and other animals and how each responds to stimuli in the environment. Develop a chart that shows how humans and other animals respond to various stimuli. Create a personal coat of arms depicting students' achievements, likes, significant life events,etc.	behavior individual stimuli emotion socialization animal classification	BMS-DUSO Kit stories and activities Unit 1- "Toward Self Identity: Developing Self Awareness and a Positive Self Concept" and Unit 7- "Toward Emotional Stability: Understanding Stress" Magic Circle activities BMS-Farnette, Forte, and Loss. I've Got Me and I'm Glad. Nashville: Incentive Publications, Inc., 1979. Suggested class reading: BMS-O'Dell, Scott. Island of the Blue Dolphin. Boston: Houghton Mifflin Co., 1960. BMS-Beim, Jerrold. The Smallest Boy In Class. New York: Wm. Morris Co., 1949. BMS-Gipson, Fred. Old Yeller. New York: Harper and Row Co., 1956. BMS-Aesop-Jones, Vernon Translator, Aesop's Fables: "The Crow and the Pitcher." New York: Avenel Books, 1912. BMS- Philips, Barbara. Don't Call Me Fatso. Milwaukee: Raintree Publishers, 1980. BMS-Filmstrip, "Sense or Nonsense"

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 4

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Make a time line including pictures and commentaries on the entries.		BMS-Hunt, Irene. Up a Road Slowly. New York: Grosset and Dunlap, 1966.
	Extend the time line to include future goals of each child.		
	Write autobiographies and post them without names. Allow class to guess who's who.		
	Make fingerprints of the class and compare.		
	Have a "Problem Box." Anyone may anonymously deposit a problem and each day the class can discuss a solution.		
	Write reports on habits of individual animals.		
	Use self-awareness activities suggested in I've Got Me and I'm Glad. (See pgs 11, 17, 34, 35, 39)		

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 5

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Everyone should be aware of their personal strengths and weaknesses. 2. Personal strengths and weaknesses can be used in different ways. 3. Success means different things to different people.	Use Group Process activities. Discuss individual strengths and weaknesses. Discuss how certain inherited or acquired traits help in sports or occupations. Collect information about physical characteristics of famous people or people they admire. Discuss how you and others handle strengths and weaknesses. Make an anonomous "Pet Peeve" box. Class will discuss why these exist and how they can be resolved. Hold a "Strength Bombardment Circle". After class has listed positive adjectives describing a person, a child will be selected to be the object of the verbal bombardment of positive character strengths. Make a bulletin board of successes using pictures or photographs and captions. Create a questionnaire to interview grades K-3 on personal attitudes, choices, hobbies, or beliefs. Keep a journal of personal successes throughout the school year. Read and discuss related stories with the class.	characteristics inherited acquired	Group Process material BMS - Sime, Howe, and Kirschenbaum. Values Clarification. New York: Hart Publishing Co., Inc., 1972. BMS - Striker, Susan and Kimmel, Edward. The Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1978. Suggested class reading: BMS - Sperry, Armstrong. Call It Courage. New York: Collier Book, 1979. BMS - Daringer, Helen F. Adopted Jane. New York: Harcourt Brace Jovanovich, Inc., 1947. BMS - Grahome, Kenneth. Wind in the Willows. New York: Avon, 1965.

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 5
(Continue)
The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Have a student bring to class 5 tangible items that recall or symbolize their past successes or accomplishments (ribbons, trophies, team shirt, newspaper clippings, etc.).		
	Have each student complete the "HERO!" newspaper story in The Anti-Coloring Book.		
	Use Values Clarification suggested activities.		
	Use self-awareness activities suggested in I've Got Me and I'm Glad. (See pgs. 18, 23, 16 17, 20, 31, 38, 45, 55, 97, 98).		

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 6

The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Success means different things to different people at different times. 2. Some people know themselves better than others. 3. Experience helps one become emotionally and socially mature.	Use Group Process activities. Discuss how strengths and weaknesses affect success and how you handle that. Discuss what is success: - to you - to parents - in sports - as adults Discuss "How does knowing yourself help you make decisions?" As a class, create a self-rating list of personal characteristics that are of importance to the students (athletic ability, appearance, friendliness, etc.). Have each student confidentially rate themselves. Discuss what the class felt was important and how difficult it was to rate oneself. Have each student write their own high school yearbook biography. List together activities, clubs, or sports which they might be involved in. See 5th grade success symbol activity. Have each student make a collage, bulletin board, or list of success symbols they do not now have but would like to acquire in the future. Have students write a newspaper article which describes their honor, discovery, or other success in the future. Give varying newspaper dates to the class.	satisfaction frustration objectivity subjectivity	Group Process materials BMS - Simon, Howe, & Kirschenbaum. Values Clarification. New York: Hart Publishing Co., Inc., 1972. Suggested class reading: BMS - Blume, Judy. Super Fudge. New York: E.P. Dutton, 1980. Other titles by same author: - Tales of a Fourth Grade Nothing - Otherwise Known as Shiela the Great - Are You There, God? It's Me, Margaret - Blubber - It's Not the End of the World - Starring Sally J. Freema as Herself - Freckle Juice

HUMAN GROWTH AND DEVELOPMENT
STRAND #1 - GRADE 6
(Continue)
The Individual and Personality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Use Values Clarification suggested activities. (Many fun and effective games, pgs. 30, 35, 38, 58, 116, 139, 228, etc.)		

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 1

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Family members have different roles and responsibilities. a. mother & father-work at home, outside the home, care of children b. brothers, sisters-share, snare, help c. grandparents-role in family 2. Families are different. a. size b. composition 3. Family composition may change. 4. Family members have needs. a. respect and love b. a feeling of belonging c. loyalty d. understanding e. structure, rules, and discipline 5. A new baby changes family patterns. a. preparation for the new baby b. care of the new baby c. feelings about having a new family member 6. Animals prepare for the birth of their young. 7. Parents care for the needs of their young.	Read and discuss related stories. Use family related DUSO stories, activities, songs, and posters. Show suggested filmstrips, transparencies, and projectuals and discuss. Use Teaching and Learning About Aging Curriculum materials for family and intergenerational study. Use DUSO family puppets for role playing activities. Role play family responsibilities or anecdotal situations. Make pictures and puppets of family groups and discuss various family compositions. Share photographs of children and their family, having each child identify all their family members and their relationship. Collect and cut out magazine pictures of different family groups. Make a "Families" book or collage. Share baby pictures that illustrate child being cared for. Discuss care and the possible variety of care givers. Have each child describe the jobs and responsibilities of each member of his family. Discuss the chores and responsibilities that are common to most parents and children.	parent adult family young responsibility shelter prepare adult/young names: cat-kitten dog-puppy deer-fawn kangaroo-joey lion-cub duck-duckling sheep-lamb goat-kid goose-gosling cow-calf horse-foal pig-piglet male-female	BMS-DUSO Kit stories and activities BMS-DUSO Kit family puppets BMS-Teaching and Learning About Aging curriculum material BMS-Striker, Susan. The Second Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1981. BMS-Striker, Susan. The Fourth Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1981. BMS-Animal Families-"Memory" Card Matching Game, Milton Bradley BMS-Baby Animals Hard cover folding book BMS-Zoology 591.5 Familiar Animals and Their Families 6 filmstrips ("Mr. & Mrs. Robin and Their Family", "Mrs. Squirrel and Her Family", etc.) BMS-Social Science 392 The Family 3M Transparency Kit BMS-Zoology 590, Raytheon Education Co. Elementary Science Projectuals. Set 1-"Young Are Like Their Parents" "Growth and Reproduction" (chicken)

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 1

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
7. a. human-love, food, shelter, cleanliness, protection, education b. animal-needs and level of care vary 8. Animal family structure, parental role, care, and responsibility differ among species. 9. At different stages of development, animal babies may or may not look like the adult of their species. 10. Particular names may by used for animal young.	Discuss and list ways of helping parents. Talk with the class about the games they played when they were babies. Complete the related activity as found in The Fourth Anti-Coloring Book. Talk with the class about their favorite before-bedtime activities and stories. Complete the related activity as found in The Fourth Anti-Coloring Book. After reading various stories about new siblings joining a family, discuss the preparations parents and siblings make for a new baby. As different animal families are studied, relate in discussion how these animals prepare for the birth of their young and how it differs from the preparations for a new human baby. When discussing the changes that take place when a new baby joins a family, have the children try to describe what they think their family was like before they were born and when their parents were children themselves. Discuss with the class other ways in which the composition of a family may change (grandparents moving in, college students going away to school, adoption, death, marriage, etc.). Compare the above changes with those that may take place in animal family structures.		BMS-Sociology 301.42 Society for Visual Education Robert and His Family 4 sound filmstrips. BMS-Filmstrips - "Nest, Den, and Hive" "Homes" To read to class: BMS-Alexander, Martha. And My Mean Old Mother Will Be Sorry, Blackboard Bear. New York: Dial Press, 1972 BMS-Alexander, Martha. We Never Get to do Anything. New York: Dial Press, 1970 BMS-Keats, Ezra. Peter's Chair. New York: Harper and Row, 1967. BMS-Alexander, Martha. Nobody Asked Me If I Wante a Baby Sister. New York: Dial Press, 1971. BMS-Arnstein, Helene S. Billy and Our New Baby. New York: Human Sciences Press, 1973. BMS-Eastman, P.D. Are You My Mother? New York: Rando House, 1960. BMS-Cole, Joanna. My Puppy is Born. New York: Scholastic Book Service, 1973.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 1

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Play "Memory" game to match the animal baby with adult of same species. Discuss the particular names used for animal young and the adult. Invite owners of baby animals to bring babies to share with the class and to discuss the care these babies are given. When reading animal stories and when showing filmstrips, relate the animal's level of development, family structure, needs, and parental care with that of humans. (Ex. Could you stand up right after birth? Were your eyes closed like the kittens when you were born?) After studying various animal families, interview each child about what animal baby he would like to be and why. After studying the parental care and the development of young animals, list with the class the similarities and differences between the care, needs, and early development of humans and these animals. Have class bring in animal pictures to share. As a class, fill in a teacher-made key displaying various aspects of parental care (shelter, warmth, food, protection, and training) about each animal.		BMS-Hogan, Paula Z. The Beaver. Milwaukee: Raintree Publishers, Inc., 1979. (Also see other titles in this series: The Whale, The Tiger, The Elephant, The Crocodile, The Gorilla The Wolf.) BMS-National Geographic Society. Lion-Cubs. Washington, D.C., 1972. BMS-Gross, Ruth Belov. A Book About Pandas. New York: The Dial Press, 1972. BMS-Beer, Kathleen C. What Happens in the Spring. Washington, D.C.: National Geographic Society, 1977. BMS-Burton, Dr. Maurice. All Color Book of Baby Animals. London: Octopus Books, 1974.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 2

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Family members have different roles and responsibilities. a. mother and father - work at home, outside the home, care of children b. brothers, sisters - share, help c. grandparents - role in family d. aunts, uncles - role in family 2. Families are different. a. size b. composition 3. Family composition may change. 4. Family members have needs. a. respect and love b. a feeling of belonging c. loyalty d. understanding e. structure, rules, and discipline 5. A new baby changes family patterns. a. preparation for the new baby b. care of the new baby c. feelings about having a new family member 6. Animals prepare for the birth of their young.	Read and discuss related stories. Show suggested filmstrips and discuss. Review family related DUSO stories, activities, songs, and posters. Use Group Process activities related to family situations. Use Teaching and Learning About Aging Curriculum materials for family and intergenerational study. Have each child complete the family portrait drawing as found in The Fourth Anti-Coloring Book. As each child shares his portrait with the class, have the family members identified by name and relationship to the child. Compare the children's portraits in terms of size and composition. Have each child bring in family photographs which illustrate that a child my receive care from a variety of care givers. Have each child describe the jobs and responsibilites of each member of his family. Discuss the chores and responsibilities that are common to most parents and children. Make a classroom graph of home chores and who is responsible for them in each child's family.	sibling individual responsibility shared responsibility male/female names: hen-rooster stag or buck-doe bull-cow colt-filly stallion-mare boar-sow bill-nanny, goat gander-goose adult/young names: (See first grade vocabulary also.) beaver-kit	BMS-DUSO Kit stories and activities Group Process material BMS-Teaching and Learning About Aging curriculum material BMS-Striker, Susan. The Fourth Anit-Coloring Book. New York: Holt, Rinehart, and Winston, 1981. BMS-Filmstrip. "Homes" (Also see first grade filmstrip resources.) To read to class: BMS-Burton, Dr. Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974. BMS-Amos, William H. Life in Ponds and Streams. Washington, D.C.: National Geographic Society, 1981. BMS-Venino, Suzanne. Amazing Animal Groups. Washington, D.C.: National Geographic Society, 1981. BMS-Schilling, Betty. Two Kittens Are Born. New York: Holt, Rinehart, and Winston 1980. BMS-Beer, Kathleen Costello What Happens in the Spring. Washington, D.C.: National Geographic Society, 1977.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 2

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
7. Parents care for the needs of their young. a. human-love, food, shelter, cleanliness, protection, education b. animal-needs and level of care vary 8. Animal family structure, parental role, care, and responsibility differ among species. 9. At different stages of development, animal babies may or may not look like the adult of their species. 10. Particular names may be used for animal young. 11. Particular names may be used for male and female animals.	After discussing the needs of family members, role play family situations that portray the importance of family love, respect, understanding, and loyalty in helping a child deal with difficult situations. With the class seated in a circle, have each child tell part of the continuous story, "My Terrible Day Without Rules At the conclusion of the story, discuss the need for rules, structure, and disipline at home and at school. Discuss with the class how their level of dependency on their parents has changed as they have grown older. Compare and contrast their dependency on parents for routine activities. Have each child complete a "Now and Then" collection of drawings illustrating the theme, "You've Come A Long Way, Baby." As an extension of this activity, have children bring in family photographs to make their own bulletin board illustrating the same thing. After sharing experiences of about new siblings joining a family, discuss with the class the preparations parents and siblings make for a new baby. As different animal families are studied, relate in discussion how these animals prepare for the birth of their young and discuss how it differs from the preparations taken for the arrival of their new siblings.	seal-pup spider- spiderling bird- fledgling rabbit- kit elephant- calf zebra-colt whale-calf turkey- poult owl-chick swan-cygnet	BMS-Hogan, Paula Z. The Beaver. Milwaukee: Raintree Publishers, Inc., 1979. (Also see other titles in this series: The Whale, The Tiger, The Elephant, The Crocodile, The Gorilla, The Wolf, The Kangaroo.) BMS-National Geographic Society. Lion Cubs. Washington, D.C., 1972. BMS-Gross, Ruth Belov. A Book About Pandas. New York: The Dial Press, 1972. BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1955. BMS-McDearmon, Kay. A Day in the Life of a Sea Otter New York: Dodd, Mead and Co., 1973. BMS-McClung, Robert M. Blaze The Story of a Striped Skunk. New York: William Morrow and Co., 1969. (See other books by this author: bear, deer, humming bird, chipmunk.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 2

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Discuss the allocation of rooms in the children's home and the changes that may have occurred as a result of their birth and siblings' birth. Discuss the need for tolerance of siblings' use of the children's belongings and parents' tolerance of the use of their belongings. Allow class time to share related anecdotes.		
	Discuss with the class other ways in which the composition of a family may change (grandparents moving in, college students going away to school, adoption, death, marriage, divorce, etc.). Compare these changes with those that may take place in animal family structures.		
	Set up in the classroom an independent filmstrip viewing center for class to review first grade animal family filmstrips. Set aside an animal books library for independent use also.		
	When discussing animal stories and filmstrips, relate the animal's level of development, family structure, needs, and parental care with that of humans. Compare and contrast the care of human and animal babies using photo essays, bulletin boards, or collages.		
	With the class graph or chart various information on animals and their families. Information to be charted may include:		

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 2

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	the length of parental care, the primary care giver (none, mother, father, or shared), community structure (family, group or none), gender of group leader, and male/female, young/adult names for each species. Review previously studied names for young-adult animals. (See first grade vocabulary.) Introduce extended second grade vocabulary. With the class discuss particular names which are used for male-female animals.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 3

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Family members have different roles and responsibilities. a. individual responsibilities b. shared responsibilities 2. As a child grows his responsibilities grow. 3. Families are different. a. size b. composition 4. Family composition may change. a. birth b. death c. leaving home d. divorce e. re-marriage f. extended family 3. Family members have needs. a. respect and love b. a feeling of belonging c. loyalty d. understanding e. structure, rules, and discipline 6. Families and communities help each other. 7. Human and animal parents prepare for the birth of their young.	See DUSO kit stories and activities. Use Teaching and Learning About Aging Curriculum materials for family and intergenerational study. Read and discuss related stories with the class. Show suggested filmstrips, transparencies and projectuals and discuss with the class. Relate discussions to classroom Social Studies curriculum on communities. Study and report on families in other countries. Collect pictures of family life and share these with the class. Discuss "immediate family", "extended family", and "ancestors". As a homework assignment, have each child collect information about his family's history and design a family tree that extends to grandparent level. Discuss what important topics the class would like to talk about with parents. Complete the related exercise as found in The Fourth Anti-Coloring Book. Discuss what makes the students angriest at their parents. Complete the related exercise as found in The Fourth Anti-Coloring Book.	extended family ancestors male/female names: boar-sow (bear, pig) billy-nanny goat gander-goose pen-cob (swan) bull-cow (cattle, seal, whale) giraffe, elephant) buck-doe (deer, rat, rabbit, antelope, kangaroo) ewe-ram stallion-mare (horse, zebra) tom-tabby, cat	BMS-DUSO Kit stories and activities. BMS-Teaching and Learning About Aging curriculum material. BMS-Striker, Susan. The Fourth Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1981. BMS-Farnette, Fork, and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS-Filmstrips: "Homes" "Lions" Suggested class reading: BMS-Quigley, Stacy. Do I Have To?. Milwaukee: Raintree Publishers, 1980. BMS-Morris, Dean. Insects That Live In Families. Milwaukee: Raintree Publishers, 1977. BMS-Amos, William H. Life in Ponds and Streams. Washington, D.C.: National Geographic Society, 1981. BMS-Venino, Suzanne. Amazing Animal Groups. Washington, D.C.: National Geographic Society, 1981. BMS-Schilling, Betty. Two Kittens Are Born. New York: Holts Rinehart, and Winston, 1980.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 3

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
8. Parents care for the needs of their young; a. human-love, food, shelter, cleanliness, protection, education b. animal-needs and level of care vary 9. Animal family structure, parental role, care, and responsibility vary among species. 10. Particular names may be used for male and female animals.	Discuss the favorite activities the children did with their parents as babies. Complete the related activity as found in The Fourth Anti-Coloring Book. Complete the "Family Portrait" activity on page 24 of People Need Each Other. This exercise may be expanded to include the family members (grandparents, aunts, cousins, etc.). Complete the "Check It Out" family responsibilities chart on page 14 of People Need Each Other. Discuss shared and individual responsibilities of family members. Role play the "Tell Tale" family communication situations on page 17 of People Need Each Other. Review previously studied names for adult and young animals. (See Grade 2 vocabulary list.) Challenge the class to find as many new names as possible. As a class, study the names given to male and female animals. Ask the class to make lists of as many names as possible and indicate where the same male-female name applies to various species. Using the suggested book list, have each student choose an animal to study. Ask each child to complete a questionnaire on the various aspects of the animal's family life and habits.	tom-hen (turkey) fox-vixen drake-duck jack-jenny (donkey) lion-lioness adult/young names: (see Grade 2 vocabulary)	BMS-McDearmon, Kay. The Walrus: Giant of the Artic Ice. New York: Dodd Mead & Co., 1974. BMS-Wood, Dorothy. The Cat Family. New York: Harvey House Inc., 1966. BMS-Longacre Press Ltd. Birds and Their Nests. London, 1962. BMS-Blough, Glenn. Animals and Their Young - Evanstan: Harper & Row, 1966. BMS-Zim, Herbert S. The Great Whales. New York: William Morrow & Co., 1951. (Also see Owls by same author.) BMS-McClung, Robert. Blaze, The Story of a Striped Skunk New York: William Morrow & Co., 1969. (Also see other books by this author: bear, deer, chipmunk, hummingbird.) BMS-Crosby, Alexander. Junior Science Book of Beavers. Champaign: Garrand Publishing Co., 1960. (Also see other titles in this series: Penguins, Elephants, Turtles.) BMS-Goudey, Alice E. Here Come the Bears. New York: Charles Scribner's Sons, 1954. BMS-Schwartz, Elizabeth and Charles. Cottontail Rabbit. New York: Holiday House, 1957.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 3

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	When all questionnaires are complete, they may be compiled into a booklet to be used for classroom reference. Have class study and compare types of bird nests. Make a booklet on bulletin board containing pictures and descriptions of nests. After studying various animal families, have the class create the "perfect" parents for an imaginary animal. Make a list of the parent's responsibilities to their young. Set up in the classroom an independent viewing center to review previously shown filmstrips. Set aside an animal books library for independent use also. When discussing animal stories and filmstrips, relate the animal's level of development, family structure, needs, and parental care with that of humans. Class may graph or chart this information.		BMS-Gross, Ruth Belov. A Book About Pandas. New York: The Dial Press, 1972. BMS-Eberle, Irmengarde. Moose Live Here. Garden City Doubleday and Company, 1971. BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1955. BMS-McDearmon, Kay. A Day in the Life of a Sea Otter. New York: Dodd, Mead and Co., 1973. BMS-Ripper, Charles. Foxes and Wolves. New York: William Morrow and Co., 1961. BMS-Uhl, Melvin John. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-Hess, Lilo. Mouse and Company. New York: Charles Scribner's Sons, 1972.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 4

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Family members have different roles and responsibilities. a. individual responsibilities b. shared responsibilities	Use DUSO Kit stories and activities with the class. Use teaching and Learning About Aging curriculum materials for family and intergenerational activities.	heredity kinship relationship roles responsibility male/female names: (see 3rd grade vocabulary list) Animal group names: flock-bird sloth-bear colony-beaver lodge-bobcat clowder-cat sounder-piglets kennel-dog pace-donkey	BMS-DUSO Kit stories and activities. BMS-Teaching and Learning About Aging curriculum material. BMS-Striker, Susan. The Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1978. BMS-Farnette, Fork, and Hurris. People Need Each Other. Nashville: Incentive Publications, Inc. 1979. (A Social-Awareness Activity Book) BMS-Filmstrip "Elephants" Suggested class reading: BMS-Radley, Gail. Nothing Stays the Same Forever. New York: Crown Publishers, 1981. BMS-Hunt, Irene. Up a Road Slowly. New York: Follett Publishing Co., 1966. BMS-Rodgers, Mary. Freaky Friday. New York: Harper and Row, 1972. BMS-Mann, Peggy. My Dad Lives in a Downtown Hotel. New York: Scholastic Book Services, 1973. BMS-Carlson, Natalie. The Half Sisters. New York: Harper & Row, 1970. BMS-Armstrong, William H. Sounder. New York: Harper & Row, 1969.
2. Families are different. a. size b. composition	Show suggested filmstrips, transparencies, and projectuals and discuss.		
3. Family composition may change. a. birth b. death c. leaving home d. divorce e. remarriage f. extended family	Complete the family crest activity as found in The Anti-Coloring Book. Have children share and discuss the completed activity. Have the class identify and list physical characteristics which are hereditary.		
4. Family members have needs. a. respect and love b. a feeling of belonging c. loyalty d. understanding e. structure, rules, and discipline f. goal-setting	Discuss the meaning of responsibility and the need for family members to accept and share responsibilities at home. Have each child describe his responsibilities at home. Have each child describe his responsibilities to his family. Identify jobs which are shared and those which are an individual responsibility.		
5. Family structures vary throughout the animal kingdom.	Have each student collect family photographs for a "photo essay". Photos may illustrate the family members working or playing together. Compare and contrast each essay in terms of size and composition.		
6. Human and animal families prepare for the birth of their young.			
7. Parents care for the needs of their young. a. human-love, food, shelter, cleanliness, protection, education b. animal-needs and level of care vary	Have each child construct a "kinship" mobile showing his relationship to five or more people. Share and display mobiles in classroom.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 4

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
8. Animal family structure, parental role, care, and responsibilities vary among species. 9. Particular names may be used for male and female animals and groups of animals.	Discuss what important topics the students would like to talk about with parents. Have each child then write a letter to his parents. (See related third grade activity.) Talk about the need for family rules and discipline with the class. Ask students to recall times when breaking the rules was important enough to risk a punishment. Complete the related exercise as found in The Fourth Anti-Coloring Book with a drawing or writing assignment. Have class share what they remember or have been told by parents of the comical antics of their early childhood. Complete the activity about funny home movies as found in The Fourth Anti-Coloring Book. Complete the "Family Persuasion" activity on page 11 of People Need Each Other. Have the class share related situations in which family responsibilities were neglected. Complete the "Tell-Tale" family communications activity on page 17 of People Need Each Other. Review previously studied names for male-female animals. With the class discuss particular names which are used for animal groups. Have students find and list as many names as possible.	skulk-fox gaggle-geese troop-kangaroo pride-lion warren-rabbit flock-sheep pack-wolf troop-monkey school-fish herd-horse hog zebra giraffe elephant deer whale goat cattle antelope	BMS-Byars, Betsy. The Summer of the Swans. New York: Viking Press, 1970. BMS-Wilder, Laura I. Little House in the Big Woods. New York: Harper & Row, 1953. (See other titles by same author.) BMS-Earle, Olive, Birds and Their Nests. New York: William Morrow and Co., 1952. BMS-Hartman, Jane. How Animals Care for Their Young. New York: Holiday House, 1980. BMS-Morris, Dean. Insects That Live in Families. Milwaukee: Raintree Publishers, 1977. BMS-Napier, John and Prue. Monkeys and Apes. Washington: Time-Life Films, 1976. (Also see The Cat, Insects and Spiders.) BMS-Wood, Dorothy. The Cat Family. New York: Harvey House Inc., 1968. BMS-Longacre Press Ltd. Birds and Their Nests. London, 1962. BMS-Hess, Lilo. Mouse and Company. New York: Charles Scribner's Sons, 1972. BMS-Eberle, Irmengarde. Moose Live Here. Garden City: Doubleday and Company, 1971.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 4

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Using the suggested book list, have each student research information about a particular animal and write a report including the various aspects of family life and characteristics of reproduction (egg or live birth). As each student presents his report, graph or chart various information on animals and their families. Information to be charted may include: the length of parental care, the primary care giver, community structure, gender of the group leader, and male/female, young/adult names for each species. Set up in the classroom an independent viewing center to review previously shown filmstrips. Using the suggested reading list, set aside a classroom library of animal books for student use. When discussing animal filmstrips and reports, relate the animal's level of development, family structure, needs, and parental care with that of humans. The class may graph or chart this information.		BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1955. BMS-Silverstein, Alvin and Virginia. Mammals of the Sea. San Carlos: Golden Gate Junior Books, 1971. BMS-Ripper, Charles. Foxes and Wolves. New York: William Morrow and Co., 1961. BMS-Uhl, Melvin John. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-McDearmon, Kay. The Walrus: Giant of the Arctic Ice. New York: Dodd, Mead and Co., 1974. BMS-Blough, Glenn. Animals and Their Young. Evanston: Harper and Row, 1966. BMS-Zim, Herbert. The Great Whales. New York: William Morrow & Co., 1951. (Also see Owls by same author.) BMS-The Illustrated Encyclopedia of the Animal Kingdom. New York: The Danbury Press, 1971. BMS-McClung, Robert. Blaze The Story of a Striped Skunk. New York: William Morrow and Co., 1969. (Also see other books by this author: bear, deer, chipmunk, hummingbird.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 4

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
			BMS-Crosby, Alexander. Junior Science Book of Beavers. Champaign: Garrard Publishing Co., 1960. (Also see other titles in this series: Penguins, Elephants, Turtles.)
			BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 5

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Families are different. a. size b. composition 2. Family composition may change. a. birth b. death c. leaving home d. divorce e. re-marriage f. extended family 3. Family members have different roles and responsibilities. 4. Family members share space, time, resources, responsibilities, and experiences. 5. Family members have needs. a. respect and love b. a feeling of belonging c. loyalty d. understanding e. structure, rules, and discipline f. long and short term goals 6. An individual's behavior, preferences, goals, and dislikes may be effected by the family. 7. Families and communities help each other.	Use Teaching and Learning About Aging curriculum materials for family and intergenerational study. Show suggested filmstrips and discuss. Introduce the following activity to the students: You are going to live with a new family for one week. Imagine that you must change places with a friend. To help your friend, create a "Survival Kit". a. biographies of the members of your family b. lists of "do's" and "don't's", include why? c. daily schedule (for one week) d. glossary of special words or phrases e. chores, Who does them? When? f. floor plan of home and bedroom g. "great" family anecdotes (Discuss the types of stories, appropriateness, and subject.) h. contents of the Survival Kit you will hide under your bed Each student may research the life cycle of animals resulting in an oral or written report for the class. Some interesting life cycles might be: the cuckoo the platypus the kangaroo etc.	survival biography instinct imprint phylum mollusca annelida arthropoda amphibian reptilian aves mammalia pisces	BMS-Farnette, Fork, and Harris. People Need Each Other. Nashville: Incentive Publication, Inc., 1979. (A Social-Awareness Activity Book) page 22 BMS-Filmstrips: "Metamorphosis" "The Snail and Its Relatives" "The Lobster and Its Relatives" "Monkeys and Apes" Part I "Elephants" "Snakes" "Sharks" "Bears" Part II Suggested class reading: BMS-Hartman, Jane. How Animals Care for Their Young. New York: Holiday House, 1980. BMS-Earle, Olive. Birds and Their Nests. New York: William Morrow and Co., 1952. BMS-Napier, John, and Prue. Monkeys and Apes. Washington: Time-Life Publishers, 1976. (Also see Insects & Spiders.) BMS-Graves, Eleanor. The Cat. Washington: Time-Life Films, 1976. BMS-Longacre Press Ltd. Birds and Their Nests, London, 1962.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 5

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
8. Human and animal parents prepare for their young. 9. Animal parents "teach" (imprint) behavior to their young and respond instinctively to the young's behavior. 10. Parents care for the needs of their young. a. human-love, food, shelter, cleanliness, protection, and education b. animal - needs and level of care vary 11. Animal family structure, parental role, care, and responsibility differ among species.	Prepare a list of 100-200 animals names representative of the major animal phyla, class, or order: mollusca annelida arthropoda amphibia reptilia aves pisces mammalica Prepare an "animal characteristic" form including the following data areas: a. skin type b. skeletal type c. mode of reproduction d. degree of parental care e. food sources The students should complete one form for each animal listed. The class sorts the forms by common characteristics. Arrange the forms on the bulletin board. The students should discuss the data and "discover" the structure of biological taxonomy (classification). Using the suggested reading list, set aside a classroom library of animal books for student use.		BMS-Eberle, Irmengarde. Moose Live Here. Garden City: Doubleday and Company 1971. BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1955. BMS-Silverstein, Alvin and Virginia. Mammals of the Sea. San Carlos: Golden Gate Junior Books, 1971. BMS-Uhl, Melvin John. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-McDearmon, Kay. The Walrus: Giant of the Arctic Ice. New York: Dodd, Mead and Co., 1974. BMS-Hess, Lilo. Mouse and Company. New York: Charles Scribner's Sons, 1972. BMS-Crosby, Alexander. Junior Science Book of Beavers. Champaign: Garrard Publishing Co., 1960. (Also see other titles in this series: Penguins, Elephants.) BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 5

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
			BMS-Zim, Herbert. Owls. New York: William Morrow and Co., 1950.
			BMS-Conklin, Gladys. Chimpanzee Roams the Forest. New York: Holiday House, 1970.
			BMS-Schwartz, Elizabeth and Charles. Cottontail Rabbit. New York: Holiday House, 1957.
			BMS-The Illustrated Encyclopedia of the Animal Kingdom New York: The Danbury Press, 1971.

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 6

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Families are different. a. size b. composition	Use Teaching and Learning About Aging Curriculum materials for family and intergenerational study.	geneology ancestor descendent	BMS-Teaching and Learning About Aging curriculum material BMS-Group Process material
2. Family composition may change. a. birth b. death c. leaving home d. divorce e. re-marriage f. extended family	Use Group Process activities as related to family situations. Complete the "Kinship" family relationships brain teaser on p. 27 of People Need Each Other, following a discussion of relatives' titles (i.e. cousins, aunts, uncles,...).	goal setting decision	Suggested class reading: BMS-Loury, Lois. A Summer To Die. New York: A Bantam Book, 1977.
3. Family members have different roles and responsibilities.	Discuss the study of geneology. The students should trace their family trees. Include parents,		BMS-Peare, Catherine O. The Helen Keller Story. New York: Thomas Y. Crowelt Co., 1959.
4. Families and communities have responsibilities to each other. a. Family (a) political activity (b) adhere to laws (c) financial support (taxes) b. Community (a) services (roads, education) (b) information (c) forum for opinions	grandparents, great-grandparents, aunts, uncles, cousins and siblings. As an alternative activity have the class obtain the family tree of a famous person. Ask students to write a biography of a selected ancestor. The student should start with basic information, such as: country, occupation, dates, etc. The biography is a fiction based on fact. Ask students to identify the decision-making policy in their family. Discuss the reason for this policy.		BMS-Frank, Anne, Anne Frank: The Diary of a Young Girl. New York: Simon & Schuster, 1952. BMS-Blume, Judy. It's Not the End of the World. New York: E.P. Dutton, 1976. (Also see other titles by same author.)
5. Family members should recognize the needs of others. a. respect and love	Students should list those decisions controlled by students, student w/parent, and parents alone.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 2 - GRADE 6

The Family

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
b. feeling of belonging c. loyalty d. understanding e. structure, rules discipline	Answer the following questions: What decisions are held by other adults? What decisions do young adults have difficulty with? Why?		
6. Families develop a method of goal setting and decision making.	Study the similarities and differences between the human family and the "family" structure of other animals. You may wish to review male/female names, (see Grade 2-4).		

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 1

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Everyone wants to have friends. 2. Everyone needs to think of how others feel and to respect their feelings. 3. Everyone needs to recognize that it hurts to be left out. 4. Some qualities help us to make friends. Some characteristics can make it difficult for us to play and work with others. 5. Good manners and courtesy show kindness and consideration for others. 6. Taking turns, sharing, cooperating, and doing one's part helps us to live and work more happily with others. 7. An encouraging, pleasant approach helps produce positive results.	Use Units 2 and 3 DUSO activities, stories, songs and posters. Use Magic Circle activities. Read and discuss related stories with class. Show suggested filmstrips and discuss. Have each child help paint a class mural showing children getting along with others, sharing, and taking turns on the playground and in the classroom. Describe a perfect imaginary friend following the guidelines of "Create a Comrade" on page 43 of People Need Each Other. Have children illustrate and share their imaginary friend. Discuss and list together ways of working and playing more harmoniously. Post list in the classroom as a reminder. Discuss ways of helping friends and role play. Have a group discussion and make a chart entitled, "If I could do one nice thing for my friend I would..." Try this activity in small groups as a memory game having each child say his suggestion then repeat all those that were said before him. Have each child complete the "Good Friend Award" activity in The Third Anti-Coloring Book.	sharing cooperating courtesy manners consideration kindness	BMS-DUSO Kit stories and activities Unit 2 - "Understanding Feelings" Unit 3 - "Understanding Others" BMS - Magic Circle Activities BMS - Psychology 179.9 Singer The Adventures of the Lollipop Dragon Sound Filmstrips. "Working Together" "Sharing" "Care of Property" "Taking Turns" BMS - Social Science 301.1 Scholastic - Kindle Children's Interrelationships Mixing In 5 Sound Filmstrips BMS - Filmstrip - "Quarrel, Quarrel" BMS - Filmstrip - "Manners at Play" BMS - Filmstrip - "Courtesy BMS - Farnette, Forte, and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS - Striker, Susan. The Third Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1980.

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 1

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Repeat this activity periodically throughout the year.		BMS - Duplicating Masters, Glad to be Me. Walt Disney Productions.
	Dramatize simple courtesies and manners. Practice introductions for Open House.		To read to class:
	Have a classroom message center or mailbox with individual cubbies. Each week introduce a new positive phrase (I like your ____., I like the way you ___.) Have each child write a note completing the phrase with pictures or words to send to a classmate. Children should write to everyone once before sending a second message.		BMS - Hoff, Syd. Who Will Be My Friends? New York: Harper and Brothers, 1960. BMS - Alexander, Martha. Blackboard Bear. New York: Dial Press, 1973. BMS - Cohen, Miriam. The New Teacher. New York: Macmillan Co., 1972.
	Have each child complete the cut and paste activities on selecting and identifying qualities of a good friend. On pages 14 and 22 in Disney's Glad to be Me masters book.		BMS - Grimm, Jacob and Wilhelm. The Elves and The Shoemaker. New York: Charles Scribner's Sons, 1960. (Also available as filmstrip.)
	Create a changing classroom job board of various classroom maintenance tasks. Discuss the importance of assuming these responsibilities and the positive results they insure.		BMS - Burton, Virginia Lee. Mike Mulligan and His Steam Shovel. Boston: Houghton Mifflin Co., 1939.

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 2

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Everyone wants to have friends and to have a feeling of belonging and acceptance. 2. Courtesy, kindness, and acceptance of others' feelings show consideration and respect for others. 3. Cooperating, sharing and taking responsibility helps us to work more efficiently and harmoniously with others. 4. An encouraging, pleasant approach helps produce positive results. 5. Much more can be accomplished through cooperation. 6. Every member of a group has responsibilities within that group. Taking responsibility helps insure success of a group task.	Review Unit 2 and 3 DUSO activities, stories, songs, and posters. Use Group Process and Magic Circle activities. Read and discuss related stories. Show suggested filmstrips and discuss. Have each child complete the "Good Friend Award" activity in The Third Anti-Coloring Book. Repeat this activity periodically throughout the year. Have each child complete the Rebus letter as in found in The Anti-Coloring Book. The assignment may be varied using the words admire, like, miss, enjoy, etc. Use the telephone call activity as found in The Anti-Coloring Book. Have children share and discuss the completed activity. Write a continuation to Joan Walsh Angland's A Friend is Someone Who Likes You. List characteristics of a good friend individually and then share them with the class. Compile a master friendship list.	courtesy consideration respect responsibility cooperation thoughtfulness friendship	BMS - DUSO Kit stories and activities Unit 2 - "Understanding Feelings" Unit 3 - "Understanding Others" BMS - Magic Circle activities BMS - Group Process material BMS - Psychology 155.42 Eye Gate Filmstrips Little Things That Count 8 Sound Filmstrips (Helping others, good manners, respect for property of others, honesty, perseverance, sharing, and responsibility.) BMS - Social Science 301.1 Scholastic-Kindle Children's Interrelationships Mixing In 5 Sound Filmstrips BMS - Filmstrip - "Two to Make Friends" BMS - Filmstrip - "More Than One Friend" BMS - Filmstrip - "The New Pupil" BMS - Social Science 370.11 Getting to Know Me 2 Sound Filmstrips "Working With Others" "Succeeding the Right Way"

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 2

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Have class complete the activity "Create a Comrade" on page 43 of People Need Each Other. Share and display class comrades. Discuss the responsibilities of assuming classroom jobs and paint a classroom mural together depicting each student carrying out one of his responsibilities. This activity can be repeated and varied to show children accepting responsibility or getting along with others in group projects, on the playground, or while playing team sports. Discuss the various groups the children belong to: -classroom -reading groups -scouting groups -cooking groups -small discussion groups Complete the "Groupies" exercise on page 80 of People Need Each Other to describe the activities done within each group discussed. Have children list their responsibilities in their roles as members of various groups. Have small groups work together to complete a large picture of a zoo, circus, or school setting. Each child should use a marker of a different color. When the activity is completed, have the groups discuss how they worked together to produce a balance of all colors.		BMS - Farnette, Forte, and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS - Striker, Susan and Kimmel, Edward. The Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1978. BMS - Striker, Susan. The Third Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1980. To read to class: BMS - Simon, Norma. I Was So Mad! Chicago: Albert Whitman and Co., 1974. BMS - Simon, Norma. How Do I Feel? Chicago: Albert Whitman and Co., 1970. BMS - Anglund, Joan Walsh. A Friend is Someone Who Likes You. New York: Harcourt, Brace and World, Inc., 1958.

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 3

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Everyone needs to have friends. Friendships play an important role in our lives. (Individual friendships are the first steps in peer grouping.) 2. Every person is a member of various groups and communities and needs to learn to work within them. 3. Cooperating, sharing, and taking responsibility helps people to work more efficiently and harmoniously in a group. 4. Group success is contingent on the contributions and assumed responsibilities of its members. 5. Consideration and respect for others and their feelings help people to relate well with peers and others in the community. 6. To work successfully within a group both acceptance and tolerance of others' feelings and values is necessary.	See DUSO kit stories and activities. Use Group Process and Magic Circle activities. Read and discuss related stories with the class. Show suggested filmstrips and discuss. Hold a discussion of different groups and communities the children belong to: -school groupings -neighborhood -sports/teams -religious Have children list their responsibilities in their rules as members of various groups of various groups and communities. Role play the above responsibilities. Relate discussions to classroom social studies curriculum on communities. Have each child complete the Rebus letter as found in The Anti-Coloring Book. The assignment may be varied using the words admire, like, miss, enjoy, etc. Use the telephone call activity as found in The Anti-Coloring Book. Have children share and discuss the completed activity.	friendship communities neighborhood peers tolerance	BMS - DUSO kit stories and activities. Unit 2 "Toward Friendship" Understanding Peers" Group Process material Magic Circle activities BMS - Farnette, Forte, and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS - Striker, Susan and Kimmel, Edward. The Anti-Coloring Book. New York: Holt, Rinehart, and Winston 1978. BMS - Striker, Susan. The Second Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1979. BMS - Social Science 301.34 Eye Gate Filmstrips Understanding the Community 6 Sound Filmstrips BMS - Psychology 153.4 What Do You Think? series 6 Sound Filmstrips (values lying, cheating, stealing, promises, thoughtfulness) BMS - Social Science 377 Developing Basic Values 2 Sound Filmstrips "Recognition of Responsibilities" "Consideration for Others"

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 3

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
7. Each child is influenced by his community and his peers.	Have small groups work together to complete the subway car decoration activity as found in The Second Anti-Coloring Book. Each child should use a marker of a different color. When activity is completed, have the groups discuss how they worked together to produce a picture with a balance of all colors. This type of activity can be used with other drawing projects. Complete the problem/solution worksheet on page 32 of People Need Each Other. Discuss other problems and rate various solutions with the class. For other related activities see pages 34, 42, and 67. Have class decode the message on page 33 of People Need Each Other. Allow class to use the code to write their own messages. Make silhouettes or body shadows of each student. Each week feature a "special" student and allow each classmate to write positive remarks about the student on the silhouette. Have each child complete the "Community Capsule" activity as found on page 56 of People Need Each Other. Use other community related social-awareness activities. (See pages 57, 63, 68, 72, 76) With the class, write an acrostic poem using the word FRIENDSHIP.	friendship communities neighborhood peers tolerance	BMS - Filmstrip "Our School" Suggested class reading: BMS - Zelonky, Joy. I Can't Always Hear You. Milwaukee: Raintree Publishers, 1980. BMS - Fassler, Joan. The Boy with a Problem. New York: Human Sciences Press, 1971. BMS - Zelonky, Joy. My Best Friend Moved Away. Milwaukee: Raintree Publishers, 1980.

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 4

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Friendships are important to one's emotional and social well-being. 2. Consideration, respect for others, and acceptance and tolerance of others' feelings help to develop and maintain friendships. 3. Group success is contingent on its members' cooperative spirit, contributions, and assumed responsibilities. 4. Friends and peer groups can influence one's attitudes and actions. 5. The child relates and interacts differently with everyone with whom he comes in contact: friends peer group older/younger children the opposite sex adults older adults	Use Unit 2 DUSO kit stories and activities. Use Magic Circle Activities. Use the suggested reading list with the class for book reports. Show suggested filmstrips and discuss. Have small groups work together to complete the "What's going on up there?" Sky mystery activity as found in The Fourth Anti-Coloring Book. Each child should use a marker of a different color. When activity is completed, have the groups discuss how they worked together to produce a picture with a balance of all colors. This type of activity can be used with other drawing projects. Discuss the qualities or characteristics of a: good friend good student bully leader Have each student draw the name of a classmate from a hat. Each should write a description of positive qualities and characteristics of the classmate. Stories may be shared with the class. Use puppets or role playing activities to portray situations involving quarrelling, fighting, tattling, and peer pressure.	qualities peers environment influence peer pressure admiration traits characteristics emotional/social	BMS - DUSO kit stories and activities. Unit 2 "Toward Friendship: Understanding Peers" Magic Circle Activities BMS - Teaching and Learning About Aging curriculum material BMS - Psychology 153.4 Values in Action 10 Sound Filmstrips ("My Best Friend", "It's All Your Fault", etc.) BMS - Filmstrip "Leaders and Followers" BMS - Filmstrip "Part of the Team" BMS - Filmstrip "Bob's Little Shadow" BMS - Farnette, Porta and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS - Striker, Susan and Kimmel, Edward. The Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1978. BMS - Striker, Susan. The Second Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1979.

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 4

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Have each child complete the trophy for a friend activity as found in The Anti-Coloring Book.		BMS - Striker, Susan. The Fourth Anti-Coloring Book. New York: Holt, Rinehart, and Winston, 1981.
	Have each child complete the portrait activity as found in The Second Anti-Coloring Book.		Suggested class reading:
	Have each child list character traits he admires in others. After individual lists are complete, combine to make a master list.		BMS - Neville, Emily. It's Like This Cat. New York: Harper, 1963.
	Discuss the statement: "The group is not always right." Have groups role play situations which illustrate the statement.		BMS - Bach, Alice. The Meat in the Sandwich. New York: Dell, 1975.
	Share with the class Charlie Brown books and stories. Divide class into groups to write the book "Charlie Brown's Dream Come True." Each book should end with the uncharacteristic acceptance of Charlie Brown.		BMS - Conford, Ellen. Me and the Terrible Two. New York: Archway Books, 1974.
	Have the class write recipes for friendship. Encourage class to include a list of ingredients and directions for mixing.		
	Continue the third grade discussion of the responsibilities of group members to include more global groups (i.e. state, national, and international governments and organizations).		
	Discuss how friends have influenced the way you dress. Determine the current dressing trends.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 5

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Friendships are important to one's emotional and social well being. 2. Consideration, respect for others, acceptance, and tolerance will help develop and maintain friendships. 3. Friendships require emotional commitment. This may foster conflicts between individuals and groups. 4. A child's interactions and friendships are not limited to his peer group. They may include: older/younger children adults older adults authority figures business community 5. Everyone with whom a child interacts can influence his attitudes and actions. 6. Group success is contingent on communication, cooperation, assumed responsibilities, and a willingness to compromise. 7. Leadership and/or authority may be necessary for a group to function successfully.	Design a poster diagramming a perfect friend, leader, bully, etc. Examples: "...runs his feet off for me... lends me a hand..." Keep an anonymous chart of conflict situations: time, place, number of people, cause? List those characteristics that you greatly Have class write reports on someone they admire or one who has made significant contributions to society. Review biographies of famous persons and discuss their strengths, weaknesses, and the conditions of their success. Discuss tolerance, consideration, acceptance, and the need for rules using the "Flip Side" activity as found on page 42 of People Need Each Other. Interview a person in another class about school attitudes by completing the "Looking Around" activity as found on page 87 of People Need Each Other. With the class develop a questionnaire to be used to interview students in grades K-3. Topics may include: attitudes, preferences, habits, experiences, personal data. Have students total and graph the results to be shared with the school.	peer acceptance influence self-control tolerance leadership peer pressure	BMS - Farnette, Forte, and Harris. People Need Each Other. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity Book) BMS - Teaching and Learning About Aging curriculum material

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 5

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Complete the "Weigh In" self-rating activity as found on page 47 of People Need Each Other.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 6

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Human relationships exist on a continuum. A child's relationships are not limited to only friendships. 2. Pressure to conform or produce may be exerted by: friends family school community society 3. People vary in their attitudes toward others. 4. Communication is fundamental in assuring resolution of conflict.	Use Group Process activities. Order these terms from most negative to most positive. stranger friend enemy acquaintance loved one fellow worker boss, etc. This is a very powerful activity, the teacher may wish to select the terms. Discuss how students discriminate the fine shades of emotional ties. Discuss how pressure may be helpful as a motivation. Discuss how pressure may be detrimental to: families academic work friends individual health and emotional well-being. Collect newspaper articles detailing the effect one individual may have on others in different situations. This may be compiled over time or used as a bulletin board, as found in <u>People Need Each Other</u> on page 97. Collect examples from newspaper or magazine articles, readings, or personal experience of: prejudice - examples: race, religious, etc. conformity - examples: school, military, etc.	acquaintance motivation conformity peer pressure attitudes conformity stereotyping prejudice reputation status symbols	BMS - Farnette, Forte, and Harris. <u>People Need Each Other</u>. Nashville: Incentive Publications, Inc., 1979. (A Social-Awareness Activity) Group Process Material BMS - <u>Teaching and Learning About Aging</u> curriculum material

HUMAN GROWTH AND DEVELOPMENT
STRAND 3 - GRADE 6

Peers and the Environment

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	stereotyping - examples, sex occupation.		
	List family situations or reported newspaper accounts in which further communication may have brought about a solution.		
	Discuss the difference between: symbols of conformity symbols of success symbols of status.		
	The students should list the "symbols" they own, they see in school, adults own, or are advertised.		

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 1

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
Life comes from life. All living things reproduce things like themselves. Different living things grow and change. Plants, animals, and humans may pass through stages in their development in which they may or may not look like the adult of the species. Male and female are other names for boy and girl and man and woman. There are physical similarities and differences between males and females. Animal babies have a mother and a father in the beginning. Some animals are born alive while others are hatched from eggs. All birds and many reptiles lay eggs with shells. There are many kinds of eggs and many kinds of nests. Some animals lay their eggs in water. These eggs do not have hard shells like birds' eggs. Some animals produce one baby per birth while others may produce twins, triplets, or more. Some animals give birth to litters of varying sizes.	Follow SCIS science plant curriculum and Blanchard School curriculum and relate to growth and reproduction. See activities in "The Individual and Personality" and "The Family" strands as related to growth and development. Read and discuss related stories with the class. As a class, watch the Massachusetts Educational Television program, "All About You". Discuss each program's content afterwards with the class. Show suggested filmstrips, movies, and projectuals and discuss. Classroom plants and pets may be used as a vehicle for demonstrating growth and developmental stages. After reading animal stories and viewing filmstrips, discuss and list with the class some animals which are born alive and some which are hatched from eggs outside the mothers' bodies. Discuss with the class different names used for boys and girls. Relate these names to bathroom labels: men-women, male-female, ladies-gentlemen, boys-girls, lads-lasses, etc. Play "Simon Says" and attribute-type games to help class recognize boys are males and girls are females.	male female man woman adult parent young newborn toddler hatch egg reproduce twins triplets litter abdomen navel umbilical cord oxygen uterus nurse breast nipple	BMS-SCIS science curriculum material Massachusetts Educational Television "All About You" science program BMS-Zoology 590, Raytheon Education Co. Elementary Science Projectuals. Set 1 - "Growth of Children Set 3 - "Plant Growth" (sweet potato) BMS-Botany, Zoology 580, 590 Miliken Transparency-Duplicating Book Plants and Animals. "Animals Grow and Change" "Plants Grown and Change" "Kinds of Seeds" BMS-Filmstrip, "It's Spring New Life on the Farm" To read to class: BMS-Burton, Dr. Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974. BMS-Jordan, Helene J. How a Seed Grows. New York: Thomas Y. Crowell Company, 1960. BMS-Beer, Kathleen Costello What Happens in the Spring. Washington, D.C.: National Geographic Society, 1977. BMS-First Grade Classroom Science Book Collection to read to class:

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 1

Physical Growth and Production

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
A human baby grows inside its mother in the uterus. Through the umbilical cord, the baby shares the mother's food and oxygen supply while it lives inside the mother's body. Most babies in our country are born in the hospital. The mother and baby are given special care in the hospital by doctors and nurses. Some newborn babies are very helpless and need a great deal of care from their parents. Others are well-developed and can do many things soon after birth. Some newborn babies are fed food brought to them by their parents. Some feed themselves, and some nurse from their mothers.	(Ex. "Simon says, 'All females put your hands on your heads.'") After reading animal stories and viewing filmstrips, discuss and list with class different physical characteristics of male and female animals of the same species. Discuss bird plummage coloration, comparative sizes, facial hair, lions' manes, etc. With the class, create a bulletin board or display illustrating these differences. Encourage children to bring in books and pictures from home for the display. With the class, list and sort animals by milk drinkers and animals that do not nurse but rather are fed by their parents or find their own food. As a class, list and sort familiar animals which are hatched from eggs outside the mothers' bodies and animals which are born alive.		Baby Animals Hard cover folding book. Miller, Jane. Birth of a Foal. New York: Scholastic Book Services, 1977. Warren, Elizabeth. I Can Read About Baby Animals. Mahwah, N.J.: Troll Associates, 1975. Selsam, Millicent E. How Puppies Grow. New York: Scholastic Book Services, 1972. Sabin, Louis. Amazing World of Butterflies and Moths. Mahwah, N.J.: Troll Associates, 1982.

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 2

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
Life comes from life. All living things reproduce things like themselves. Different living things grow and change. Plants, animals, and humans may pass through stages in their development in which they may or may not look like the adult of the species. Male and female are other names for boy and girl and man and woman. There are physical similarities and differences between males and females. Animal babies have a mother and a father in the beginning. Some animals are born alive while others are hatched from eggs. All birds and many reptiles lay eggs with shells. There are many kinds of eggs and many kinds of nests. Some animals lay their eggs in water. These eggs do not have hard shells like birds' eggs. Some animals produce one baby per birth while others may produce twins, triplets, or more. Some animals give birth to litters of varying sizes.	Follow SCIS science plant curriculum and Blanchard School science curriculum and relate to growth and reproduction. See activities in "The Individual and Personality" and "The Family" strands as related to growth and development. Read and discuss related stories with the class. Show suggested filmstrips, movies, and projectuals and discuss. Classroom plants and pets may be used as a vehicle for demonstrating growth and developmental stages. Follow Grassroots Science, Set 1, "Beginnings" audiovisual curriculum. Select appropriate activities as suggested in the teacher's guide to supplement concepts presented in the filmstrips. (The hatching of chicks and frogs is included in the third and fourth grade curriculum.) See the suggested activities for the first grade in the "Physical Growth and Reproduction" strand to reinforce concepts.	male female man woman adult parent young newborn toddler hatch egg reproduce twins triplets litter abdomen navel umbilical cord oxygen uterus nurse breast nipple	BMS-SCIS Science curriculum materials BMS-Biology 574.1, Grassroots Science, Babies Are Beginnings 4 Sound Filmstrips "Babies are Beginnings" "What is a Seed" "What's in an Egg" "The Mysterious Blob" BMS-Science 577, Eye Gate Life, A Unique Phenomenon. Sound filmstrips "Perpetuating Life" BMS-Zoology 590, Raytheon Education Co., Elementary Science Projectuals Set 2 - "Growth and Development" (frog) Set 3 - "Plant Growth" (potato) Set 4 - "Seeds" BMS-Filmstrips: "Seed" "It's Spring-New Life on the Farm" "Butterflies and Moths" BMS-Botany, Zoology 580-590 Miliken Transparency-Duplicating Book "Animals Grow and Change" "Plants Grow and Change" "Kinds of Seeds" To read to class: BMS-Burton, Dr. Maurice. All Color Book of Baby Animals. London: Octopus Books, 1974.

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HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 2

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
A human baby grows inside its mother in the uterus. Through the umbilical cord, the baby shares the mother's food and oxygen supply while it lives inside the mother's body. Most babies in our country are born in the hospital. The mother and baby are given special care in the hospital by doctors and nurses. Some newborn babies are very helpless and need a great deal of care from their parents. Others are well-developed and can do many things soon after birth. Some newborn babies are fed food brought to them by their parents. Some feed themselves, and some nurse from their mothers.			BMS-Jordan, Helene J. How a Seed Grows. New York: Thomas Y. Crowell Company, 1960. BMS-Brown, Margaret Wise Young Kangaroo. New York William R. Scott, Inc., 1955. BMS-Amos, William H. Life in Ponds and Streams. Washington, D.C.: National Geographic Society, 1981. BMS-Schilling, Betty. Two Kittens are Born. New York: Holt, Rinehart, and Winston 1980. BMS-Beer, Kathleen Costello. What Happens in the Spring. Washington, D.C.: National Geographic Society, 1977. BMS-Lacht, Jane. Honeybees. Washington, D.C.: National Geographic Society, 1973. BMS-McClung, Robert M. Bufo, The Story of a Toad. New York: William Morrow and Co., 1954. (See other books by this author on rattlesnakes, dragonflies, butterflies, and caterpillars.) Also refer to First Grade Classroom Science Book Collection listed in first grade resources.

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 3

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
All living things reproduce things like themselves. Plants reproduce in different ways. One way is through seeds. Under the right conditions, a flower produces seeds. Thus, the seeds will produce a plant; the plant will produce a flower, the flower will produce a seed. Animals must have a mother and a father in the beginning. The female's body produces egg cells. The males body produces sperm cells. In order for new life to begin to grow, an egg cell from the female must be joined with a sperm cell from the male. This process is called fertilization. Reproduction of some animals begins with an egg cell inside the mother. Some animals reproduce from eggs outside the mother. A developing baby is called an embryo.	The fertilization, development, and hatching of chicken eggs will be a primary focus for the Grade 3 "Physical Growth and Reproduction" strand. The teacher should read the information provided in the Grassroots Science audiovisual materials guide, pages 42-46, in order to insure sufficient information and appropriate process for teacher and class. A small plastic incubator is available as an alternative to preparing the Grassroots model. Review Grade 2 "Physical Growth and Reproduction" strand concepts with the class. Discuss the similarities and differences between animals which lay eggs and those which bear live young, and the varying levels of care newborn animals require. Expand the discussion to include levels of care provided by egg layers from none (frogs which abandon eggs), to some (alligators which protect the nest but not the young), to great (birds which protect nest and young). Similarly, discuss levels of care provided by live bearing animals from none (garter snakes which abandon young), to some (cats and dogs which nurse young), to great (humans who provide extended care). Follow SCIS science plant curriculum and Blanchard School curriculum and relate to growth and reproduction.	egg cell sperm cell fertilization embryo pollination uterus umbilical cord reproduce incubate germination mate yolk chick rooster hen	BMS-SCIS science curriculum materials. BMS-Biology 574.1, Grassroots Science, Babies Are Beginnings: Guide to activities and projects. BMS-"Chick-Chick" electric egg incubator. BMS-Science, Learning Systems Corporation. Let's Learn About Life: All About Eggs; a sound cassette mini system. BMS-Science 577, Eye Gate. Life: a Unique Phenomenon, sound filmstrip "Perpetuating Life". BMS-Zoology 590, Raytheon Education Co. Elementary Science Projectuals. Set 2 "Growth and Development" (frog) Set 4 "Monarch Butterfly Cycle" "Seeds" BMS-Zoology 595.7, Coronet Filmstrips Investigating Insects, sound filmstrip "Life Cycles". BMS-Zoology 590, Zoology Transparencies Set 35 "Development of Bird Eggs" "Frog Metamorphosis" "Insect Metamorphosis"

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 3

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
An embryo inside the mother's uterus is connected to its mother by the umbilical cord which provides the embryo with food and oxygen. An embryo inside an egg, but outside the mother's body, carries its own food and oxygen source and may require special conditions for survival such as protection, temperature control, etc.	See activities in "The Individual and Personality" and "The Family" strands as related to growth and development. Read and discuss related stories with the class. Using the suggested reading list, set aside a classroom library of animal books for student use. Show suggested filmstrips, transparencies, and projectuals and discuss. Classroom plants and pets may be used as a vehicle for demonstrating growth and developmental stages. Show Eye Gate filmstrip "Perpetuating Life" and discuss with the class how living things reproduce things like themselves. Read and discuss with the class: The Chicken and the Egg by Oxford Scientific Films as an introduction to the study of chicken reproduction. With the class discuss the importance of both the rooster (male) and hen (female) in the reproductive process. The male produces sperm cells which are necessary to fertilize the egg from the female. The sperm and egg cells must be joined in order for a baby chick to begin to grow.		BMS-Filmstrips: "Gathering Eggs" (chicken) "Butterflies and Moths" "The Snail and Its Relatives" "Frogs, Toads, and Turtles" "Praying Mantis" "Seeds" Suggested class reading: BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967. (Also see other titles in this series, The Ants and The Bees.) BMS-Amos, William H. Life in Ponds and Streams. Washington, D.C.: National Geographic Society, 1981. BMS-Schilling, Betty. Two Kittens Are Born. New York: Holt, Rinehart, and Winston, 1980. BMS-Oxford Scientific Films. The Chicken and the Egg. New York: G.P. Putnam's Sons, 1979. BMS-Bromley, James. The Life of Reptiles and Amphibians. Morristown, N.J.: Silver Burdett Co., 1976. (Also see other titles in series, The Life of Fishes and The Life of Meat Eaters.) BMS-Sammis, Kathy. The Beginning Knowledge Book of Butterflies. New York: MacMillan Co., 1965. (Also see other titles in this series: Snakes, Bees and Wasps, and Turtles.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 3

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Discuss with the class that there are two types of chicken eggs. The chicken eggs at the grocery store have not been fertilized and will not develop into a chick. A fertilized egg has been joined with a sperm cell from the male, or rooster. A fertilized egg will grow and develop into a chick.		BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1953 BMS-Lecht, Jane. Honeybees. Washington: National Geographic Society, 1973.
	Obtain fertilized chicken eggs and equipment for incubating them for the classroom. Discuss with the class how bird eggs are normally laid in a prepared nest and must be kept warm in order to survive. Explain that the incubator will serve to warm the eggs in class.		BMS-McClung, Robert. Bufo, The Story of A Toad. New York: William Morrow and Co 1954. (Also see other books by this author on the rattlesnake, dragonfly, caterpillar, and butterfly.) BMS-Pringle, Laurence. The Minnow Family. New York: William Morrow and Co., 1976.
	Allow children to observe the incubating eggs each day. Relate the classroom eggs to the developmental stages of the chick as presented in The Chicken and the Egg by Oxford Scientific Films. The class may keep a chart of the stages of growth of their chicks and estimate the day of hatching.		BMS-Hess, Lilo. Life Begins for Puppies. New York: Charles Scribner's Sons, 1976. BMS-Zim, Herbert. Frogs and Toads. New York: William Morrow and Co., 1950. (Also see Snakes by same author.)
	Allow class to observe the hatching eggs if possible.		BMS-Riedman, Sarah. Sharks. New York: Franklin Watts, 1977.
	After eggs have hatched, the class may continue to observe and care for the chicks. The class may discuss options for finding new homes for the chicks. Chicks may be given to students or donated to a local farm.		BMS-Uhl, Melvin. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-Green, Ivan. The Monarch Butterfly. Chicago: Encyclopedia Britannica Press, 1964
	The class may wish to do Language Arts activities or Science experiments as related to the classroom chicks.		BMS-Burton Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974.

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 4

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
All living things reproduce things like themselves. Plants reproduce in different ways. One way is through seeds. Under the right conditions, a flower produces seeds. Thus, the seeds will produce a plant; the plant will produce a flower; the flower will produce a seed. Common plants reproduce through a process called pollination which is a simple form of fertilization. Male and female animals mate to produce young; animals have a mother and a father in the beginning. The female's body produces egg cells. The male's body produces sperm cells. In order for new life to begin to grow, an egg cell from the female must be joined with a sperm cell from the male. This process is called fertilization. Some animal eggs are fertilized internally while other animal eggs are fertilized externally.	Follow SCIS science plant curriculum and Blanchard School Curriculum and relate to growth and reproduction. See activities in "The Individual and Personality" and "The Family" strands as related to growth and development. Using the suggested reading list, set aside a classroom library of animal books for student use. As a class, watch the Massachusetts Educational Television program, "Animals and Such". Discuss each program's content afterwards with the class. Show suggested filmstrips, movies, and projectuals and discuss. Classroom plants and pets may be used as a vehicle for demonstrating growth and developmental stages. Using transparencies and duplicating pages from Our Living World and Plants, study the ways in which plants reproduce. Discuss how pollination and seed dispersal are forms of reproduction in plants. Have children make a seed collection and investigate the similarities and differences. Each child should be able to explain the different ways the seeds are spread.	egg cell sperm cell fertilization mating embryo incubate cross pollination uterus umbilical cord reproduce Flower: pistil ovary ovules petal sepal anther filament stamen Seeds: seed coat	BMS-SCIS science curriculum materials Massachusetts Educational Television "Animals and Such" science program BMS-Natural Science Industries electric frog hatchery BMS-Biology 574.1; Grassroots Science, Babies Are Beginnings: Guide to activities and projects. BMS-Chant, Alfred. Science Is Inquiring. Cleveland, Ohio: Modern Curriculum Press, 1981. BMS-Science 577, Eye Gate. Life: A Unique Phenomenon, sound filmstrip "What is Life?" BMS-Zoology 590, Raytheon Education Co. Elementary Science Projectuals. Set 2 - "Growth and Development" (frog) Set 4 - "Monarch Butterfl Cycle" "Seeds" "Reproduction by Fission" (amoeba) BMS-Biology 570, Milliken Transparency-Duplicating Book, Our Living World. "Characteristics of Living Things" "Plant Parts and Functions" "Pollination, Fertilization and Seeds"

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HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 4

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
Reproduction of some animals begins with an egg cell inside the mother. Some animals reproduce from eggs outside the mother. A developing baby is called an embryo. An embryo inside the mother's uterus is connected to its mother by the umbilical cord which provides the embryo with food and oxygen. An embryo inside an egg carries its own food and oxygen source and may require special conditions for survival such as protection, temperature control, etc.	Allow class to plant several different types of seeds and observe the varying germination rates. The class may chart or graph their results. Refer to pages 47-50 of Grassroots Science audio-visual materials guide. With the class, discuss the differences between mammals and egglaying animals. Have the class investigate and report on the meanings of the words "oviparous" and "viviparous". Discuss with the class the three general types of eggs: soft (frogs, salamanders), leathery (reptiles), hard (birds). With the class, complete Unit One of Science Is Inquiring by Alfred Chant. Chapter 1 - Flowers Chapter 2 - Seeds, Roots, and Bulbs Chapter 3 - Animals Live and Reproduce Chapter 4 - How Fish Reproduce Chapter 5 - How Reptiles and Birds Reproduce Discuss with the class internal and external fertilization of eggs. In the spring, create an environment conducive to the hatching of frog eggs in the classroom and/or isolate an area of the school pond for use as a frog hatchery and classroom observation.	Seeds: cotyledons embryo oviparous viviparous	BMS-Botony 580, Milliken Transparency-Duplicating Book, Plants. "Flowers" "Pollination and Fertilization" BMS-Zoology 595.7, Coronet Filmstrips Investigating Insects, Sound filmstrip "Life Cycles" BMS-Zoology 590, Zoology Transparencies Set 35 "Development of Bird Egg" "Frog Metamorphosis" "Insect Metamorphosis" BMS-Filmstrips: "Life Cycle of an Animal" (sea star) "Metamorphosis" "The Mosquito" "The Lobster and Its Relatives" "The Snail and Its Relatives" "Different Kinds of Worms" "Monkeys & Apes" Part I "Frogs, Toads, and Turtles" "Lions" "Snakes" "Praying Mantis" "Bears" Part II "The Story of Seeds" "Birds" Suggested class reading: BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967. (Also see other titles in this series, The Ants and The Bees.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 4

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	The teacher should refer to pages 51-54 of Grassroots Science audio-visual materials guide for a complete description of this activity. The class may chart and graph the results of their observations of the survival rate, environmental factors which affect development, etc.		BMS-Carrington, Richard. The Mammals, New York: Time Life Books, 1963. (Also see other titles, The Fishes and The Reptiles.) BMS-Napier, John and Prue. Monkeys and Apes. Washington: Time-Life Publishers, 1976. (Also see Insects and Spiders.) BMS-Ross, Edward. The Ants. Chicago: Children's Press, 1967. BMS-Shuttlesworth, Dorothy E. The Story of Ants. Garden City: Doubleday and Co., 1964. BMS-The Illustrated Encyclopedia of the Animal Kingdom. New York: The Danbury Press, 1971. BMS-Bromley, James. The Life of Reptiles and Amphibians. Morristown, N.J.: Silver Burdett Co., 1976. (Also see other titles in series, The Life of Fishes and The Life of Meat Eaters.) BMS-Samuis, Kathy. The Beginning Knowledge Book of Butterflies. New York: MacMillan Co., 1965. (Also see other titles in this series Snakes, Bees and Wasps, and Turtles.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 4

Physical Growth and Reproduction

RESOURCES

BMS-Brown, Margaret Wise. Young Kangaroo. New York: William R. Scott, Inc., 1955.

BMS-Lecht, Jane. Honeybees. Washington: National Geographic Society, 1973.

BMS-McClung, Robert. Bufo, The Story of a Toad. New York: William Morrow and Co., 1954. (Also see other books by this author on the rattlesnake, dragonfly, caterpillar, and butterfly.)

BMS-Simon, Seymour. Discovering What Frogs Do. New York: McGraw-Hill Book Co., 1969. (Also see Discovering What Goldfish Do.)

BMS-Hess, Lilo. Life Begins for Puppies. New York: Charles Scribner's Sons, 1978.

BMS-Zim, Herbert. Frogs and Toads. New York: William Morrow and Co., 1950. (Also see Snakes by same author.)

BMS-Riedman, Sarah. Sharks. New York: Franklin Watts, 1977.

BMS-Uhl, Melvin. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966.

RESOURCES

BMS-Green, Ivan. The Monarch Butterfly. Chicago: Encyclopedia Britannica Press, 1964.

BMS-Burton, Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974.

BMS-Burnett, Fisher, and Zim. Zoology. New York: Golden Press, 1958. (Also see other titles in the Golden Guide series: Butterflies and Moths, Insects, Fishes, Mammals, Birds, Gamebirds, Reptiles, and Amphibians.)

BMS-William White. A Turtle is Born. New York: Sterling Co., 1975. (Also see other titles in this series: A Frog is Born, A Bee is Born, A Butterfly is Born, The Angelfish: Its Life Cycle, The Lobster: Its Life Cycle, and Siamese Fighting Fish: Its Life Cycle.

BMS-Pringle, Laurence. The Minnow Family. New York: William Morrow and Co., 1976.

BMS-Graves, Eleanor. The Cat. Washington: Time-Life Films, 1976.

BMS-Cummanney, Francis. The Fishes. New York: Time Inc., 1963.

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 5

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Reproduction is the basic biological function which ensures the survival of the species. 2. Plants may reproduce through a number of reproductive processes. 3. Common plants reproduce through a process called pollination, which is a simple form of fertilization. 4. Animals may reproduce through a number of reproductive processes ranging from simple cell division to sexual reproduction. 5. Higher animal forms reproduce through the use of sexual reproduction. 6. Physiology and heredity effect growth and development. 7. Growth and development patterns vary from person to person. 8. Effects of growth and development arise in varied body characteristics.	Follow SCIS science curriculum and Blanchard School curriculum and relate to growth and reproduction. Classroom plants and pets may be used as a vehicle for demonstrating growth and developmental stages. Dissect plant parts to identify reproductive function. Display and discuss duplicating masters and transparencies from Milliken 570, Our Living World, and Milliken 580, Plants, to compare and contrast the reproductive processes of simple and complex plants. Present and discuss sound filmstrip, and written information dealing with the characteristics of living things derived from: -Eyegate 577,"What is Life?" -Laidlaw, Human Growth and Reproduction. Chapter 1 -Milliken 570 Spirit/Transparency, page 1, Our Living World ***Note: When using Laidlaw, Human Growth and Reproduction, an appropriate discussion guide is available to the teacher on pages 56-60. Have students read Laidlaw, Human Growth and Reproduction, Chapter 1, and discuss the presented methods of reproduction with the class.	Flower -petal -sepal -pistal -stamen -ovary -ovules -anther -filament Seed -seed coat -coty ledon -embryo -pollination -fertilization -heredity -reproduction sexual asexual egg/ovum	BMS-SCIS science curriculum materials. BMS-Botony 580, Milliken Transparency - Duplicating Book, Plants. "Flowers" "Pollination and Fertilization" BMS-Biology 570, Milliken Transparency - Duplicating Book, Our Living World. "Characteristics of Living Things" BMS-Science 577, Eye Gate Life: A Unique Phenomenon, sound filmstrip "What is Life?" BMS-Boyer, Donald A. and Brandt, Elizabeth R. Human Growth and Reproduction. River Forest: Laidlaw Brothers Publishers, 1975. BMS-Hubbard Scientific Company, Instructional Cross-section models of male and female reproductive systems. Suggested class reading: BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967. (Also see other titles in this series, The Ants and The Bees.) BMS-Carrington, Richard. The Mammals. New York: Time-Life Books, 1963. (Also see other titles, The Fishes and The Reptiles.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 5

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
9. Human reproduction requires a series of normal, predictable processes. A) Changes in body characteristics B) Development of male and female reproductive systems C) Sexual intercourse and fertilization 10. Special personal care and hygiene may be needed during growth and development. 11. Adolescence is a period of emotional as well as physical change.	Observe simple organisms through the use of microscopes and discuss their life cycles and forms of reproduction. Study the cycle of selected insects through collection, observation, and discussion. Use Zoology 590, 835, Transparency, "Insect Metamorphosis." Introduce the following bird behaviors: territorial protection, nest making, courtship, and mating. Have the class collect evidence of these behaviors. Hang nesting materials at the edge of the forest and record the amount of material taken during the spring season. ***During the study of the human reproductive systems, Strand 5, "Male and Female Sexuality" will be introduced and completed. Strand 5 offers sex-segregated classes allowing for in depth discussion of developmental topics. Read and discuss Laidlaw, "Human Growth and Reproduction", Chapter 2. Include: female reproductive system pages 26-31 male reproductive system pages 32-35 human reproduction pages 34-35, 39-40	gestation male/sexual intercourse incubate erection circumcision ejaculation nocturnal emission "wet dream" genitals sperm/semen scrotum testes sperm duct penis urethra - male & female ovary oviduct fallopian tube	BMS-Napier, John and Prue. Monkeys and Apes. Washington, Time-Life Publishers, 1976. (Also see Insects and Spiders.) BMS-Hess, Lilo. Life Begins for Puppies. New York: Charles Scribner's Sons, 1978. BMS-Zim, Herbert, Frogs and Toads. New York: William Morrow and Co., 1950. (Also see Snakes by same author.) BMS-Riedman, Sarah. Sharks. New York: Franklin Watts, 1977. BMS-Uhl, Melvin. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-Green, Ivan. The Monarch Butterfly. Chicago: Encyclopedia Britannica Press, 1961. BMS-Burton, Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974. BMS-Burnett, Fisher, and Zim. Zoology. New York: Golden Press, 1958. (Also see other titles in the Golden Guide series: Butterflies and Moths, Insects, Fishes, Mammals, Birds, Gamebirds, Reptiles, and Amphibians.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 5

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Display and explain sectional models of the male and female reproductive systems. Introduce the study of heredity. Read and discuss Laidlaw pages 45-49. Write to breeders of purebred dogs, cats, or horses, and collect pictures of sires, dams, and offspring. Compare inherited characteristics. Present Let's Learn About Life, "Why Am I Me?" tape and study sheet and discuss heredity. Discuss parent/child inherited characteristics. The teacher should be sensitive to issues of adoption. Discuss color blindness as an inherited characteristic. Identify volunteers and chart weight and height of students over many years (see school nurse). Discuss growth spurts and personal differences. Study the secondary characteristics commonly noted during male and female puberty. Assign Laidlaw pages 28-29, 34-35. Invite the school nurse to discuss hygiene during puberty. List emotions of all types. Identify which emotions the students associate with infants, toddlers, children, teenagers, adults, male or female. Have class identify their reasons for selection.	uterus vagina menstruation adolescence hormone maturity pituitary gland breast amenorrhea	BMS-William White. A Turtle is Born. New York: Sterling Co., 1974. (Also see other titles in this series: A Frog is Born, A Bee is Born A Butterfly is Born, The Angelfish: Its Life Cycle, The Lobster: Its Life Cycle, and Siamese Fighting Fish: Its Life Cycle. BMS-Pringle, Laurence, The Minnow Family. New York: William Morrow and Co., 1974. BMS-Graves, Eleanor. The Cat. Washington: Time-Life Films, 1976. BMS-Ommanney, Francis. The Fishes. New York: Time Inc., 1963. BMS-Simon, Seymour. Discovering What Earthworms Do. New York: McGraw Hill Book Co., 1969. (Also see Discovering What Goldfish Do.) BMS-Ross, Edvard. The Ants. Chicago: Children's Press, 1967. BMS-Shuttlesworth, Dorothy E. The Story of Ants. Garden City: Doubleday and Co., 1964. BMS-The Illustrated Encyclopedia of the Animal Kingdom. New York: The Danbury Press, 1971.

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 5

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Using the suggested reading list, set aside a classroom library of animal books for student use. Using the suggested book list, have each student research a particular animal and report on the various aspects of animal growth and reproduction. In class discussion, have the students compare their feelings.		BMS-Bromley, James. The Life of Reptiles and Amphibians. Morristown, N.J.: Silver Burdett Co., 1976. (Also see other titles in series, The Life of Fishes and The Life of Meat Eaters.) BMS-Sammis, Kathy. The Beginning Knowledge Book of Butterflies. New York: Macmillan Co., 1965. (Also see others titles in this series Snakes, Bees and Wasps, and Turtles.) BMS-Science, Learning System Corporation. Let's Learn About Life: "Why Am I Me?"; a sound cassette minisystem. BMS-Zoology 590, Raytheon Education Co. Elementary Science Projectuals. Set 4 - "Reproduction by Fission" (amoeba) BMS-Biology 570, Milliken Transparency - Duplicating Book Our Living World "Plant Parts and Functions" "Pollination, Fertilization, and Seeds" BMS-Zoology 590, Zoology Transparencies Set 38 "Development of Bird Eggs" "Frog Metamorphosis" "Insect Metamorphosis" BMS-Zoology 595.7, Coronet Filmstrips, Sound Filmstrip Investigating Insects "Life Cycles" BMS-Filmstrips - "Metamorphosis" "The Lobster and Its Relatives" "The Snail and Its Relatives" "Monkeys and Apes" Part II "Elephants" (Family) "Snakes"

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 6

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. Reproduction is the basic biological function which ensures the survival of the species. 2. Physiology and heredity effect growth and development. 3. Effects of growth and development arise in varied body characteristics. 4. Adolescence is a period of both physical and emotional change. 5. The cell is the basis for life. In development a fertilized egg cell transforms into a multicellular organism. 6. Human reproduction requires a series of normal, predictable processes. 7. Human fetal development follows a normal, predictable process.	Follow SCIS science curriculum and Blanchard School curriculum and relate to growth and reproduction. Create models of various types of cells: nerve, muscle, brain, bone, skin, tumors, etc. Discuss different functions of cells: -Cells carry on life and maintain growth. -Cells carry pairs of chromosomes made up of genes which determine heredity. -Cells use O_2 and organic compounds and produce CO_2 and waste -Cells cluster to form tissues, tissues form organs, and organs make systems. -Cells grow and multiply. Create models of cells in stages of reproduction (mitosis). Use clay or paper mache. Discuss the uniqueness of the individual with regard to characteristics of similarity and differences. Read and discuss Laidlaw, "Human Life: Facts for Youth to Know," Pgs. 4-12. Read and discuss Laidlaw, "Human Life: Facts for Youth to Know," Pgs. 32-35. Discuss the unique cases of estranged twins and the results of these situations. Topic: "Environment vs. Heredity"	mate/sexual reproduction fertilization heredity reproduction egg/ovum sperm erection ejaculation genitals scrotum testes sperm duct penis mammary glands breast ovary oviduct fallopian tube uterus	BMS-SCIS science curriculum materials. BMS-Botony 580, Milliken Transparency - Duplicating Book, Plants. "Flowers" "Pollination and Fertilization" BMS-Biology 570, Milliken Transparency - Duplicating Book, Our Living World. "Characteristics of Living Things" BMS-Science 577, Eye Gate Life: A Unique Phenomenon, sound filmstrip "What is Life?" BMS-Boyer, Donald A. and Brandt, Elizabeth R. Human Growth and Reproduction. River Forest: Laidlaw Brothers Publishers, 1975. BMS-Hubbard Scientific Company, Instructional Cross-section models of male and female reproductive systems Suggested class reading: BMS-Saunders, John. Young Animals. Chicago: Children's Press, 1967. (Also see other titles in this series, The Ants and The Bees.) BMS-Carrington, Richard. The Mammals. New York: Time-Life Books, 1963. (Also see other titles, The Fishes and The Reptiles.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 6

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Read and discuss heredity in Laidlaw, "Human Growth and Reproduction", Pgs. 45-49. Invite the school nurse to discuss hygiene, as well as physical and emotional changes during puberty. At this time Strand 5, "Male and Female Sexuality" will be introduced and completed. Strand 5 offers sex-segregated classes allowing for in-depth discussion of developmental topics. Present factors that effect emotions: -hormones from glands -environment (family, friends, teachers, etc.) -heredity Review function of the endocrine glands, the hormones produced and the location of each. See Laidlaw, Health Curriculum, Grades 5 and 6. -pituitary -adrenal -thyroid -gonads (testes and ovaries) -pancreas Discuss behavior patterns often seen as adolescents pass through puberty. Avoid personal references but discuss situations and their reasons: -getting upset easily -shyness -showing off -awkwardness -quarrelsome -moodiness -any other behaviors exhibited or techniques used to cope with peer problems	vagina cervix amenorrhea menstruation embed gestation fetus umbilical cord amniotic fluid placenta navel genes chromosones inherit dominant recessive mutation labor contractions afterbirth	BMS-Napier, John and Prue. Monkeys and Apes. Washington, Time-Life Publishers, 1976. (Also see Insects and Spiders.) BMS-Hess, Lilo. Life Begins for Puppies. New York: Charles Scribner's Sons., 1978. BMS-Zim, Herbert. Frogs and Toads. New York: William Morrow and Co., 1950. (Also see Snakes by same author.) BMS-Riedman, Sarah. Sharks. New York: Franklin Watts, 1977. BMS-Uhl, Malvin. About Eggs and Creatures That Hatch From Them. Chicago: Melmont Publishers, Inc., 1966. BMS-Green, Ivan. The Monarch Butterfly. Chicago: Encyclopedia Britannica Press, 1964. BMS-Burton, Maurice. All Color Book of Baby Animals. London, Octopus Books, 1974. BMS-Burnett, Fisher, and Zim Zoology. New York: Golden Press, 1958. (Also see other titles in the Golden Guide series: Butterflies and Moths, Insects, Fishes, Mammals, Birds, Gamebirds, Reptiles, and Amphibians.)

HUMAN GROWTH AND DEVELOPMENT
STRAND 4 - GRADE 6

Physical Growth and Reproduction

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	Review the Laidlaw, "Human Growth and Reproduction", Pgs. 39-40. Introduce and discuss, Laidlaw, "Human Growth and Reproduction, Pgs. 40-44. Read and discuss Laidlaw, "Human Life: Facts for Youth to Know", Pgs. 36-45. Present filmstrip, Time/Life "Life Before Birth". Review and discuss: -ovulation -fertilization and implantation -cell division -embryonic development -full term baby and childbirth -multiple births	hormone maturity acne	BMS-Bromley, James. The Life of Reptiles and Amphibians. Morristown, N.J.: Silver Burdett Co., 1976. (Also see other titles in series, The Life of Fishes and The Life of Meat Eaters.) BMS-Sammis, Kathy. The Beginning Knowledge Book of Butterflies. New York: Macmillan Co., 1965. (Also see other titles in this series Snakes, Bees and Wasps, and Turtles.) BMS-Nasco's Duplicating Book, "Human Reproduction and Development", Etheridge Albert L., 1977. BMS-Time/Life, Filmstrip, "Life Before Birth", 1972.

HUMAN GROWTH AND DEVELOPMENT
STRAND 5 - GRADE 5

Male/Female Sexuality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. The functioning of the human body becomes more complex as puberty approaches and occurs. 2. Maturation causes changes in the functioning of the male and female reproductive organs and glands. 3. Feelings about the opposite sex may begin to change as one approaches puberty. 4. Biological sexuality is only one phase of total maturity. Special Notes to the Teacher: A. "Human Growth and Reproduction" (strand 4) should be presented before "male/female sexuality" (strand 5). B. "Male/Female Sexuality" will be presented in a conventional classroom setting and in sex-segregated classes. C. When introducing the strand "Human Growth and Reproduction" the students will be informed of:	1. Outline, on the chalkboard, the major topics covered in "Human Growth and Reproduction" and introduce further topics to be covered in "Male/Female Sexuality." This allows for a common review and an introduction to the complexity of changes to occur. Review: a. body changes b. egg production c. sperm production d. fertilization Introduce: a. maturity as an adult b. changes in behavior caused by body changes Male-Segregated Class 2.A. The following suggested topics are to be considered, based upon the maturity of the class. The level, or sophistication, of the concepts and vocabulary to be taught will be a teacher/school administration decision. 1. The need for, and appropriateness of, privacy in issues of sexuality. (Strongly recommended as a topic.) 2. The need for family and school discussion on this topic. (Strongly recommended as a topic.) 3. Changes in the pubescent male: a. body development - skeletal, muscular, body hair, height and weight.	puberty maturation sexuality reproduction gender privacy body development skeletal muscular perspiration acne menstruation involuntary erection nocturnal emissions peer pressure adolescence adult	Boyer, Donald A. and Brandt Elizabeth R. Human Growth and Reproduction. River Forest: Laidlaw Brothers Publishing, 1975. Harlin, Vivian K. and Schultz, Esther D. Human Life: Facts For Youth to Know. River Forest: Laidlaw Brothers Publishing, 1975. Investigate outside sources for current audio-visual materials. Examples: -Coronet Films, "The Birth of Puppies", Chicago, 1969 -Acton-Boxborough School Department "Girl to Woman" "Boy to Man" -Planned Parenthood, League of Massachusetts, Cambridge, MA EMS-Burt and Meeks, "Education for Sexuality". W.B. Saunders Co., Philadelphia, 1975. EMS-Time/Life, "Life Before Birth". sound filmstrip, Parts 1 & 2 (Grade 6 only). Current literature and audio-visual materials will be provided by the school nurse

HUMAN GROWTH AND DEVELOPMENT
STRAND 5 - GRADE 5

Male/Female Sexuality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. the topics to be covered 2. the sex-segregated classes 3. the fact that these classes will be offered by a teacher of the same gender.	b. perspiration, body oils, and hygiene c. acne d. involuntary erections e. nocturnal emissions f. circumcision g. questions about female development		
D. Concept two (2) will be taught in sex-segregated classes, by a teacher of the same gender, while concepts 1, 3, and 4 will be offered in a conventional classroom setting.	Female-Segregated Class 2.B. The following are suggested topics to be considered, based upon the maturity of the class. The level, or sophistication, of the concepts and vocabulary will be a teacher/school administration decision. It is based upon the maturity of the class. 1. The need for, and appropriateness of, privacy in issues of sexuality. (Strongly recommended as a topic.) 2. The need for family and school discussion on this topic. (Strongly recommended as a topic.) 3. Changes in the pubescent female: a. body development-skeletal, muscular, glandular, body hair, height, and weight b. menstruation c. personal hygiene, perspiration d. questions about male development		
E. During the presentation of these concepts, current audio-visual materials and hygiene literature will be offered. Parents will have the opportunity to preview this material before classroom presentation. Student involvement in this unit is voluntary and will require parental permission.	3. There is a usual predictable progression of attitudes between boys and girls through the years.		

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HUMAN GROWTH AND DEVELOPMENT
STRAND 5 - GRADE 5

Male/Female Sexuality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
	A. Young Friends - very young children play together with no regard to boy/girl differences. B. Preadolescence - In many cases boys play with boys and girls play with girls. C. Adolescence - Girls and boys become very curious about each other. They may have difficulty knowing "how to act", what to do, or how to express feelings. Peer pressure becomes very mixed with regard to boy/girl attitudes. D. Adults - Males and females may be friends, co-workers, and mates. 4. Discuss the extra responsibilities that accompany sexual maturity. Examples: a. respect of privacy b. proper hygiene c. sensitivity to others d. responsible application of information		

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HUMAN GROWTH AND DEVELOPMENT
STRAND 5 - GRADE 6

Male/Female Sexuality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. The functioning of the human body becomes more complex as puberty approaches and occurs. 2. Maturation causes changes in the functioning of the male and female reproductive organs and glands. 3. Feelings about the opposite sex may begin to change as one approaches puberty. 4. Biological sexuality is only one phase of total maturity. Special Notes to the Teacher: A. "Human Growth and Reproduction" (strand 4) should be presented before "Male/female sexuality" (strand 5). B. "Male/Female Sexuality" will be presented in a conventional classroom setting and in sex-segregated classes. C. When introducing the strand "Human Growth and Reproduction" the students will be informed of:	The topics covered should emphasize concepts four (4) from grade 5. Review concepts one (1) through three (3) will be exercised only if needed. Suggested topics (concept 4): A. Privacy B. Peer Pressure in social groups C. Varied attitudes toward like or opposite gender groups D. Dating	puberty maturation sexuality reproduction gender privacy body development skeletal muscular perspiration acne menstruation involuntary erection nocturnal emissions peer pressure adolescence adult	Boyer, Donald A. and Bra... Elizabeth R. Human Growth and Reproduction. River Forest: Laidlaw Brothers Publishing, 1975. Harlin, Vivian K. and Schultz, Esther D. Human Life: Facts For Youth to Know. River Forest: Laidlaw Brothers Publishing, 1975. Investigate outside source for current audio-visual materials. Examples: -Coronet Films, "The Birth of Puppies", Chicago, 198... -Acton-Boxborough School Department "Girl to Woman" "Boy to Man" -Planned Parenthood, League of Massachusetts, Cambridge, MA BMS-Burt and Meeks, "Education for Sexuality". W.B. Saunders Co., Philadelphia, 1975. BMS-Time/Life, "Life Before Birth", sound filmstrip, Parts 1 & 2 (Grade 6 only) Current literature and audio-visual materials will be provided by the school nurse.

HUMAN GROWTH AND DEVELOPMENT
STRAND 5 - GRADE 6

Male/Female Sexuality

CONCEPTS	SUGGESTED ACTIVITIES	VOCABULARY	RESOURCES
1. the topics to be covered 2. the sex-segregated classes 3. the fact that these classes will be offered by a teacher of the same gender.			
D. Concept two (2) will be taught in sex-segregated classes, by a teacher of the same gender, while concepts 1, 3, and 4 will be offered in a conventional classroom setting.			
E. During the presentation of these concepts, current audio-visual materials and hygiene literature will be offered. Parents will have the opportunity to preview this material before classroom presentation. Student involvement in this unit is voluntary and will require parental permission.			

GLOSSARY OF TERMS

Abortion	The termination of pregnacy prior to the 28th week of gestation.
Induced Abortion	Expulsion or removal of an embryo resulting from an intentional act by the mother or another person.
Acne	A skin condition involving the oil glands and marked primarily by blackheads, pimples,or pustules.
Adolescence	The period of physical and emotional change from childhood to adulthood.
Afterbirth	The placenta that is discharged at the third stage of labor. All nonhuman mammals eat the afterbirth.
Amniotic sac	A fluid-filled sac that serves to protect the embryo.
Androgen	Hormonal substances that produce masculine characteristics.
Bartholin's gland	Two secreting glands found at either side of the vaginal entrance.
Biological	Pertains to living things.
Breech birth	Childbirth in which the baby is presented buttocks first.
Cervix	The neck of the uterus.
Castration	Removal of the gonads.
Cesarean birth	A method of childbirth in which a surgical incision is made through the abdominal wall and uterus. The name comes from Julius Caesar, who was thought to have been born in this manner.
Chromosomes	A chainlike set of genes in a cell, especially in a reproductive cell.
Circumcision	A surgical procedure in which the foreskin of the penis is removed.
Cleavage	A period of rapid cell division following fertilization.
Clitoris	A small organ at the upper part of the vulva.
Coitus	The act of sexual intercourse.
Colostrum	The portion of milk first secreted following pregnancy.
Conception	Fertilization of egg by sperm.
Congenital	Being present at birth but not hereditary.

GLOSSARY - (Continued) - 2

Contraceptive	A method or device used to prevent pregnancy.
Copulation	Sexual intercourse.
Corpus luteum	Temporary endocrine gland formed in the ovary after ovulation; it secretes estrogen and progesterone.
Cowper's gland	Tubular glands that secrete into the male urethra.
Dysmenorrhea	Painful menstruation.
Ectopic pregnancy	Extrauterine pregnancy; pregnancy that occurs outside the uterus (e.g. in the Fallopian tube).
Ejaculation	Male discharge of semen from the penis.
Ejaculatory duct	Anatomical junction of the vas deferens and the duct of the seminal vesicle with the male urethra. It is embedded in the prostate gland.
Embryo	Unborn baby during the first two-three months of development inside of the mother.
Endometrium	The lining of the uterus.
Epididymis	Anatomical structure connecting the testis with the vas deferens.
Estrogen	Female sex hormone produced by the ovaries.
Fertilization	The union of female and male reproduction cells.
Fetus	The unborn baby from the third month until birth.
Fallopian (uterine) tube	A tube-like extension of the uterus whereby eggs from the ovaries may pass to the uterus.
Follicle	The sac that contains the immature ovum or egg cell.
FSH	The follicle-stimulating hormone secreted by the pituitary that stimulates the growth of the follicle and the egg it contains until the point of rupture from the ovary.
Foreskin	A retractable fold of skin found over the head of an uncircumcised penis; also termed the prepuce.
Fusion	The uniting of two cells (sexual reproduction).

GLOSSARY - (Continued) - 3

Gamete	Sperm or ovum; a reproductive cell.
"Gay"	Another term for homosexual.
Gene	The part of the chromosome that is responsible for the transmission of a particular trait from parent to child.
Genitalia	External sexual organs.
Gestation	That period of time extending from conception to childbirth; pregnancy.
Gonadotropic hormones	Pituitary secretions that stimulate the sex glands.
Gonads	Testes or ovaries; sex glands.
Gynecology	The medical science that deals with the care and treatment of the female reproductive system.
Hereditary	The process by which traits are passed from parents to children before the children are born.
Heterosexual	One whose sexual interests are directed toward a member of the opposite sex.
Homosexual	One whose sexual interests are directed toward a member of the same sex.
Hormones	Chemical substances manufactured in one part of the body, carried by the blood stream, and having specific regulatory effects on other parts of the body. (ovaries, testes, etc.)
Hydrocele	A condition in which fluid accumulates in the scrotum.
Hymen	A membrane that partially covers the entrance to the vagina.
Hysterectomy	The surgical removal of the uterus.
Implantation	The attachment of the fertilized egg to the lining of the uterus.
Incubate	To keep eggs warm until they hatch.
Inguinal hernia	Hernia is an abnormal protrusion of the contents of some anatomical cavity. In inguinal hernia the protrusion is through the inguinal canal. that is, the canal through which the testes normally descend.
Insemination	Artifical or natural deposition of semen into the vagina.
Instinctive	Inborn.

GLOSSARY - (Continued) - 4

Labia Majora	Parallel outer soft folds of flesh surrounding the external genital organs of the female.
Labia Minora	Parallel inner folds of soft tissue which begins at the clitoris and end below the opening of the vagina.
Labor	Muscular contractions of the uterus that expel the baby from the mother's body.
LH	The luteinizing hormone secreted by the pituitary which causes the follicle to release the mature egg.
Mammals	The highest category of life; warm-blooded animals whose babies are born alive.
Mastectomy	Removal of a breast.
Masturbation	The manipulation of one's sexual organs to produce self-stimulation.
Mate	Sexual pairing to produce babies.
Menarche	The first menstrual flow; usually occurs between 12 and 14 years of age.
Menopause	The time in a female's life when menstruation ceases and she can no longer bear children.
Menstruation	The normal flow of blood and tissue fragments that occur about once a month.
Miscarriage	An occurence in which the fetus is expelled for reasons beyond the control of the mother.
Mutation	A change in genes resulting in a change in heredity.
Navel	The place on the abdomen to which the umbilical cord was attached; "the belly button."
Nocturnal emissions	Involuntary discharge of semen from the penis during sleep.
Nucleus	The central or interior part of a call body that organizes the behavior of the cell.
Obstetrician	A physician specializing in the care of pregnant women and in the delivery of babies.
Orgasm	A series of muscular contractions that occur at the peak of sexual activity. In the male, these contractions are responsible for ejaculation. In the female, they promote relief of congestion in the pelvic area.

GLOSSARY - (Continued) - 5

Ovary	One of two small glands in the female which produce ova, or egg cells, and hormones.
Ovulation	The act of releasing the egg from its follicle in the ovary.
Ovum	The egg cell produced by the female.
Paturition	The act of giving birth.
Pelvis	A circular bony structure in the lower abdomen which houses and protects the inner reproductive organs.
Penis	Male organ for copulation and urination.
Period	The monthly menstrual flow.
Pituitary	The tiny gland that regulates body growth. In females, this gland also regulates menstruation.
Placenta	The vascular structure by which the fetus is nourished in the uterus.
Pregnancy	The period of time, from conception to the termination of gestation, in which a woman's body nutures the growth of the fetus.
Progesterone	A hormonal substance produced by the corpus luteum; it prepares the uterus for implantation and maintains pregnancy.
Prostrate gland	Anatomical structure that surrounds the neck of the urinary bladder and the beginning of the male uretha.
Puberty	The stage of life during which young people start out toward mature sexual development.
Pubic region	The lower part of the abdomen in which are located the external organs of reproduction.
Reproduction	The ways in which plants and animals make more living things like themselves.
Asexual	Reproduction in which <u>one organism</u> produces young (cell division, budding, spores, amoeba, etc.)
Bisexual	Reproduction in which <u>one organism</u> carries both male and female characteristics (worms, sponges, starfish, etc.)
Sexual	Reproduction in which a male and a female mate to produce young.

GLOSSARY - (Continued) - 6

Sanitary napkin	A product used to absorb monthly menstrual flow (used outside the body).
Scrotum	External sac of skin and muscle that encloses the testicles. A major function of the scrotum is temperature regulation.
Semen	Fluid produced by the testes that contains the male reproductive cells released from the body by ejaculation.
Seminal vesicles	Glands that connect with the ejaculatory duct and secrete, among other substances, fructose.
Seminiferous tubules	Tubules in the testes that produce semen.
Sexuality	A term that includes all aspects of maleness and femaleness: sociological, philosophical, psychological as well as biological aspects.
SIECUS	Sex Information and Education Council of the United States. Publishes study guides on sex education. (Address: 1855 Broadway, New York, N.Y. 10023.)
Smegma	A wax-like secretion that accumulates under the foreskin.
Species	A group of animals or plants that possess one or more of the same characteristics.
Sperm	The male reproductive cell. Plural: spermatozoa
Sterility	The inability to have children.
Testicles	The male reproductive glands which produce spermatozoa.
Tampon	Absorbent type material that is inserted into the vagina to absorb the menstrual flow.
Teat	The nipple of the breast or udder of a mammal.
Testosterone	Male sex hormone produced by the testes.
Tubal pregnancy	Implantation of a fertilized egg in the Fallopian tube.
Umbilical cord	Long cord through which blood circulates. It connects the fetus to the placenta inside the mother's uterus.
Urethra	A canal extending from the bladder to the external urethral orifice. In the male it extends approximately 9 inches; the female length is about 1½ inches. In the male the canal serves as a passageway for urine and ejaculate at different times.
Uterus	The womb; the organ that receives the fertilized ovum, supports it during pregnancy, and contracts to aid in expulsion at the time of childbirth.

GLOSSARY - (Continued) - 7

Vagina	The female birth canal, made of muscle and tissue, that connects the uterus to the outside of the body, allows for the birth of the fetus, and is involved in sexual intercourse.
Vas deferens	One of two small, thick-walled tubes through which sperm pass from the testes to the urethra.
Venereal diseases	Serious, contagious diseases of the reproductive tract which are predominantly transmitted through sexual contact.
Vulva	The collective name for the external female sexual organs: includes the labia majora, labia minora, and clitoris.
Womb	Another name for uterus.